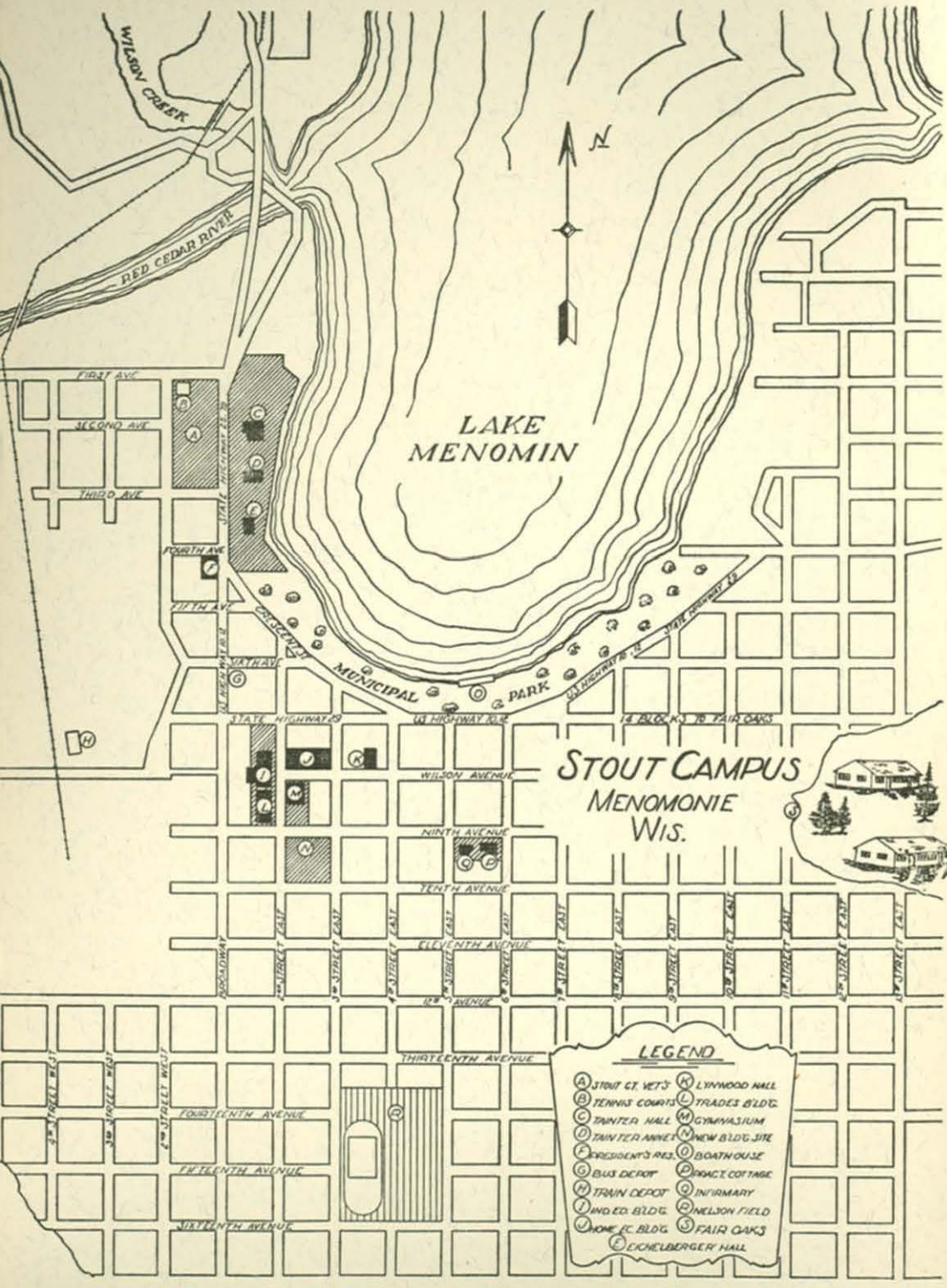
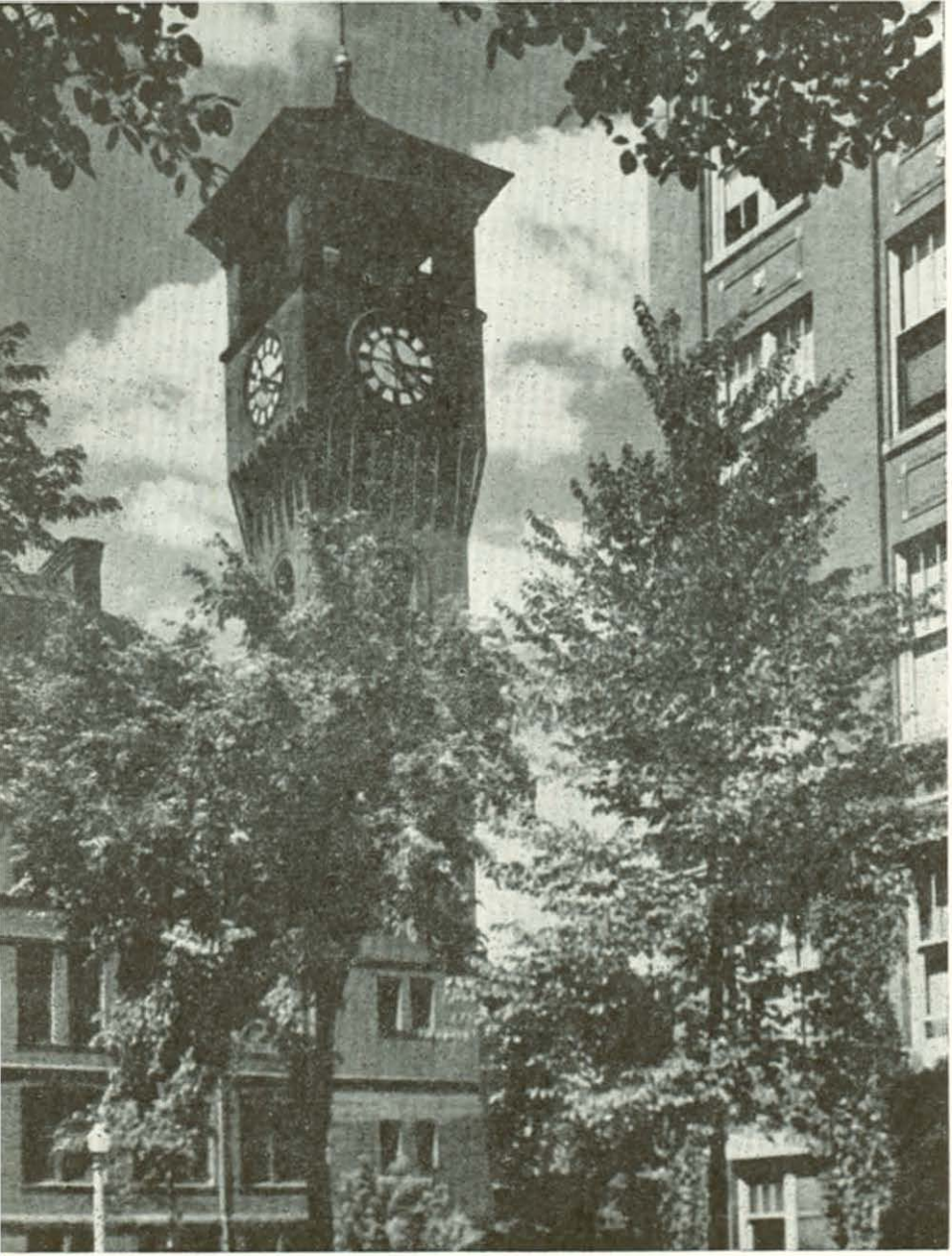
THE STOUT INSTITUTE BULLETIN

Regular Session Catalog Issue
1950 - 1952

Volume XLVII, Number 3 February 1, 1950

Issued quarterly to students of The Stout Institute. Additional copies may be obtained at the offices of administration at The Stout Institute, 120 Second Street, Menomonie, Wisconsin. Entered as second class matter March 10, 1927 at the post office at Menomonie, Wisconsin, under the act of August 24, 1912.


WILSON CREEK
RED CEDAR RIVER
N
LAKE MENOMIN
FIRST AVE
SECOND AVE
THIRD AVE
FOURTH AVE
FIFTH AVE
SIXTH AVE
STATE HIGHWAY 29
CRESCENT
MUNICIPAL
PARK
US HIGHWAY 10 E
US HIGHWAY 10 W
MAIN
1/2 BLOCK TO FAIR OAKS
STOUT CAMPUS
MENOMONIE
WIS.
WILSON AVENUE
NINTH AVENUE
TENTH AVENUE
ELEVENTH AVENUE
TWELFTH AVENUE
THIRTEENTH AVENUE
FOURTEENTH AVENUE
FIFTEENTH AVENUE
SIXTEENTH AVENUE
BROADWAY
1ST STREET EAST
2ND STREET EAST
3RD STREET EAST
4TH STREET EAST
5TH STREET EAST
6TH STREET EAST
7TH STREET EAST
8TH STREET EAST
9TH STREET EAST
10TH STREET EAST
11TH STREET EAST
12TH STREET EAST
LEGEND
A STOUT CT. VET'S
B TENNIS COURTS
C TAINTER HALL
D TAINTER ANNEX
E PRESIDENT'S RES.
F BUS DEPOT
G TRAIN DEPOT
H IND. ED. BLDG.
I HOME EC. BLDG.
J EICHELBERGER HALL
K LYNWOOD HALL
L TRADES BLDG.
M GYMNASIUM
N NEW BLDG. SITE
O BOATHOUSE
P PRACT. COTTAGE
Q INFIRMARY
R NELSON FIELD
S FAIR OAKS



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COLLEGE CALENDAR

The Stout Institute
Menomonie, Wisconsin

SUMMER SESSION 1950

Monday, June 19, Summer Session Begins
Friday, July 28, Summer Session Closes

REGULAR SESSION 1950-51

Monday, September 4, Labor Day
Tuesday, September 5, Freshman Registration
Wednesday, September 6, Registration for Matriculated Students, Freshman Convocation
Thursday, September 7, Registration for Matriculated Students and New Students Other Than Freshmen
Friday, September 8, Classes Convene
Friday, December 22, 3:00 p.m., Christmas Vacation Begins
Monday, January 8, 1951, Classes Resume
Friday, January 19, First Semester Ends
Monday, January 22, and
Tuesday, January 23, Registration for Second Semester
Wednesday, January 24, Second Semester Classes Convene
Wednesday, March 21, 3:00 p.m., Spring Vacation Begins
Thursday, March 29, Classes Resume
Sunday, May 27, Baccalaureate Address
Friday, June 1, Commencement

SUMMER SESSION 1951

Monday, June 18, Summer Session Begins
Friday, July 27, Summer Session Closes

REGULAR SESSION 1951-52

Monday, September 3, Labor Day
Tuesday, September 4, Freshman Registration
Wednesday, September 5, Registration for Matriculated Students, Freshman Convocation
Thursday, September 6, Registration for Matriculated Students and New Students Other Than Freshmen
Friday, September 7, Classes Convene
Friday, December 21, 3:00 p.m., Christmas Vacation Begins
Monday, January 7, 1952, Classes Resume
Friday, January 18, First Semester Ends
Monday, January 21, and
Tuesday, January 22, Registration for Second Semester

Wednesday, January 23, Second Semester Classes Convene
Wednesday, April 9, 3:00 p.m., Spring Vacation Begins
Thursday, April 17, Classes Resume
Sunday, May 25, Baccalaureate Address
Thursday, May 29, Commencement

SUMMER SESSION 1952

Monday, June 16, Summer Session Begins
Friday, July 25, Summer Session Closes

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BOARD OF TRUSTEES OF THE STOUT INSTITUTE

OFFICERS OF THE BOARD

President: Jessel S. Whyte, Kenosha
Vice-President: Robert L. Pierce, Menomonie
Secretary: Lloyd E. Berray, Madison

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Frank C. Horyza, Superior	1953
E. R. Fransway, Wauwatosa	1951

Agricultural Members

Elmer Wilkins, Platteville	1955
John Last, Lake Mills	1955
Robert L. Pierce, Menomonie	1951

Employer Members

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Jessel S. Whyte, Kenosha	1951

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Clarence Greiber, Director, State Board of Vocational and Adult Education, Madison

●

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Regular quarterly meetings of the Board are held on the fourth Monday in March, June, and September, and on the third Monday in December.

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12. **HOUSING:**
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13. LIBRARY:
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14. ACCREDITING:
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15. PLACEMENT:
Gertrude M. O'Brien, Clyde A. Bowman, Dwight Chinnock, Alice J. Kirk, Ann Noble, Ray A. Wigen.

16. STUDENT AFFAIRS:
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THE FIRST NAMED MEMBER OF EACH COMMITTEE PRESIDES.

THE PRESIDENT AND ACADEMIC DEANS ARE EX-OFFICIO MEMBERS OF ALL COMMITTEES.

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MRS. IRENE HOSFORD, Office Assistant-Stenographer
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MRS. EVA ROGERS, Office Assistant-Stenographer
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AGNES WINSTON, Office Assistant-Stenographer
MARGARET WISEMILLER, Office Assistant-Stenographer

FACULTY

VERNE C. FRYKLUND, President

The Stout Institute, Diploma, 1916; Colorado College of Education, A. B., 1923; University of Missouri, M. A., 1927; University of Minnesota, Ph. D., 1933; The Stout Institute since 1945.

DWIGHT L. AGNEW, Head of Department and Assistant Professor of Social Science.

Park College, Parkville, Missouri, A. B., 1935; University of Iowa, A. M., 1938; Ph. D., 1947; The Stout Institute since 1947.

HERBERT ANDERSON, Instructor of Industrial Education. Woodworking.

The Stout Institute, B. S., 1944; University of Minnesota, M. A., 1947; The Stout Institute since 1948.

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The Stout Institute, B. S., 1935; Marquette University, M. Ed., 1938; University of Wisconsin, Ph. D., 1948; The Stout Institute since 1946.

MARTHA RUTH AMON, Head of Department and Assistant Professor of Related Art.

University of Wisconsin, B.S., 1927; M.S., 1940; Graduate Study; The Stout Institute since 1949.

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Lake Forest University, Lake Forest, Illinois, B.A., 1923; University of Wisconsin, Ph.M., 1932; The Stout Institute since 1936.

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Northland College, B. A., 1930; University of Minnesota, M. A., 1932; Graduate Study; The Stout Institute since 1945.

DAVID P. BARNARD, Instructor of Audio-Visual Education, Photography, Offset Lithography.

The Stout Institute, B. S., 1946; M. S., 1947; Indiana University, Graduate Study; The Stout Institute since 1947.

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ARTHUR G. BROWN, Associate Professor of Education.

Macalaster College, B. S., 1914; University of Wisconsin, M. S., 1928; University of Minnesota, Graduate Study; The Stout Institute since 1920.

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University of Chicago, Ph. B., 1912; University of Wisconsin, Ph. M., 1927; Bread Loaf, Vermont, University of Wisconsin, Graduate Study; The Stout Institute since 1927.

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Western Illinois State Teachers College, B. E., 1927; University of Iowa, M. S., 1937; The Stout Institute since 1948.

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Kansas State College, Manhattan, Kansas, B. S., 1922; M. S., 1924; University of Iowa, Iowa State College, Graduate Study; The Stout Institute since 1948.

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Milton College, B. A., 1930; University of Wisconsin, M. A., 1942; The Stout Institute since 1946.

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MYRON HARBOUR, Assistant Professor of Science and Mathematics.

Superior State Teachers College, B. E., 1929; University of Wisconsin, Ph. M., 1945; The Stout Institute since 1947.

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University of Wisconsin, B. S. in Mechanical Engineering, 1931; The Stout Institute, B. S., 1936; Wayne University, M. Ed., 1941; Graduate Study, University of Minnesota; The Stout Institute since 1946.

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University of Wisconsin, B. S., 1920; Columbia University, M. A., 1935; Ed. D., 1946; The Stout Institute since 1947.

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BENITA GROTE SMITH, Director of Nursery School and Associate Professor of Home Economics.

Iowa State College, B. S., 1928; Merrill-Palmer School, Detroit; Iowa State College, M. S., 1941; University of Minnesota, Graduate Study; The Stout Institute since 1943.

GEORGE SODERBERG, Assistant Professor of Industrial Education. Woodworking.

The Stout Institute, B. S., 1944; M. A., 1948; The Stout Institute since 1945.

ANTHONY STORTI, Assistant Athletic Director and Instructor of Physical Education.

University of Delaware, B. S., 1948; The Stout Institute since 1948.

GLADYS TRULLINGER, Assistant Professor of Home Economics. Home Management.

University of Nebraska, B. S., 1926; M. S., 1936; Colorado State College, Michigan State College, Iowa State College, University of Minnesota, Graduate Study; The Stout Institute since 1936.

F. E. TUSTISON, Professor of Science and Mathematics.

Ohio Wesleyan University, B. S., 1909; University of Wisconsin, M. S., 1928; Tulane University, Graduate Study; The Stout Institute since 1920.

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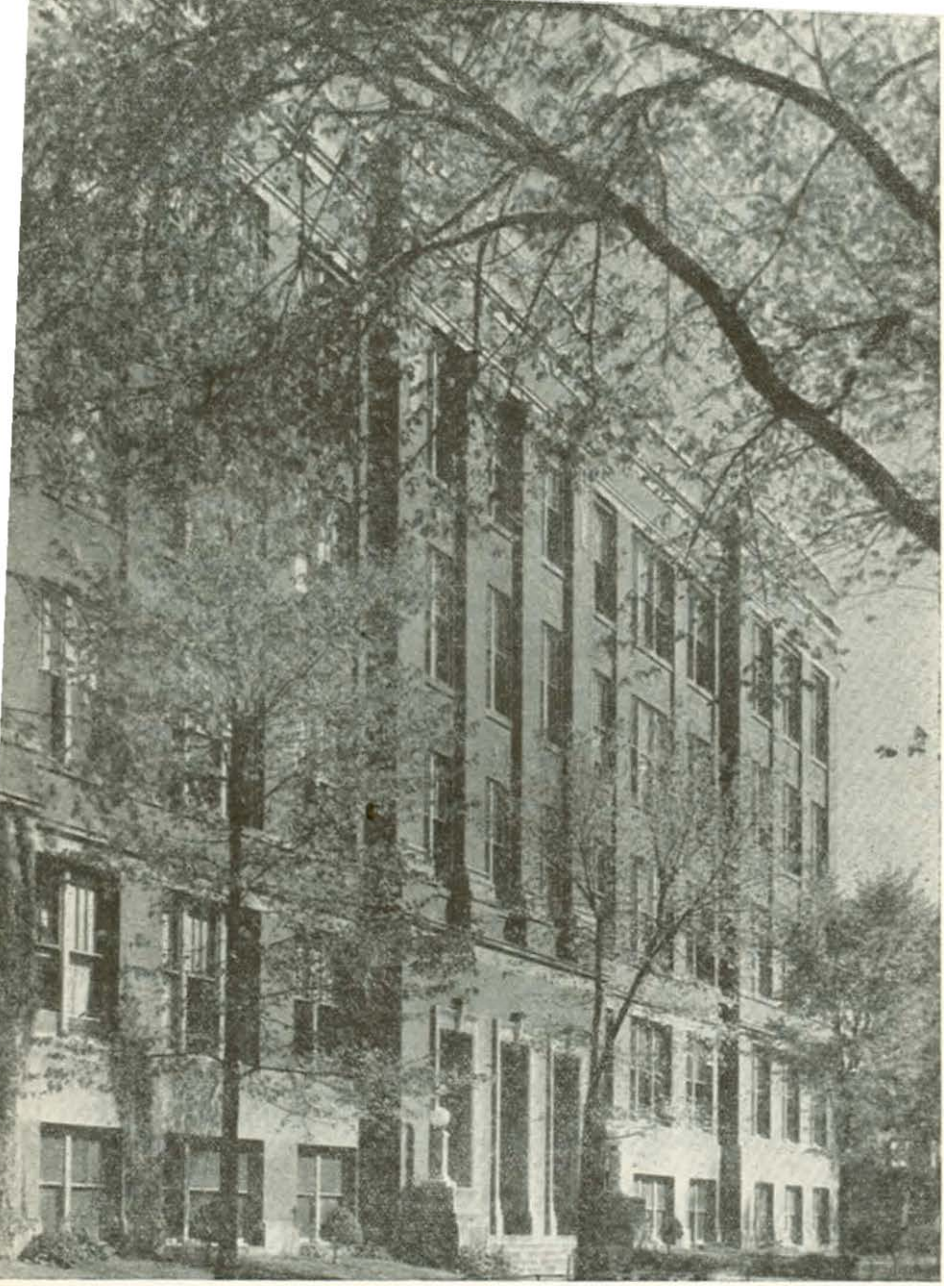
NORMAN C. ZIEMANN, Instructor of Speech.

LaCrosse State Teachers College, B. S., 1943; Northwestern University, M. A., 1949; The Stout Institute since 1949.



THE HOME ECONOMICS BUILDING

GENERAL INFORMATION

The Stout Institute has been training teachers for vocational, industrial and home economics education since 1893. At first provision was made for only a two-year course, but in 1917 the four-year course, and in 1935 the fifth year on the graduate level, leading to the degree of Master of Science, were authorized. During these years of development and expansion, it held consistently to the function of preparing teachers and administrators in these fields of work.

Provisions are made for students to complete requirements for the degree of Bachelor of Science or to take undergraduate work beyond the degree requirements for refresher purposes. Beginning with the second semester of the college year 1945-46, graduate work has been offered during both the regular session and the summer session. This curriculum leads to the degree of Master of Science with the major in vocational education, industrial arts education, or home economics education. For persons interested in study in these fields, The Stout Institute has unusual facilities and an unexcelled faculty.

The college year is thirty-six weeks in length. There are two semesters of eighteen weeks each. The summer session, which opens each year in June, two weeks after the close of the regular session, is six weeks in length.

HISTORY

With the creation of the State of Wisconsin in 1848 there came immediate recognition of the educational needs of the new commonwealth. Teacher training received prompt attention in the creation of its first normal school. Massachusetts and Pennsylvania preceded Wisconsin in the organization of normal schools; but the record shows that in 1867, less than twenty years later, Wisconsin was leading even these two states and all other states in the number of state normal schools in operation.

In 1867 Wisconsin was operating five state normal schools, one more than existed in any other state. Today the state's present political and educational leadership is dedicated to the further development of the state's educational equipment and professional standards.

In 1911, because of the importance of Industrial and Home Economics Education in the schools of the state, The Stout Institute was taken over by the state from a private ownership and operation. By legislative enactment Stout was made the state's teacher training school for teachers in these two fields of education. The Stout Institute has for almost a half century devoted its efforts to the preparation of teachers in Home Economics, Industrial and Vocational Education.

Here follows a brief summary of the history of The Stout Institute.

In 1889 Manual Training was inaugurated in the Menomonie Public Schools in all twelve grades through high school.

In 1893 new buildings were built and Manual Training was placed under separate supervision.

1903 The Stout Training School was founded under private patronage. The name was changed to The Stout Institute in 1908.

1911 The Stout Institute was presented to the state, accepted, and

placed under the control of the Board of Trustees of The Stout Institute.

1917 The Stout Institute was by legislative action made a college with degree granting power.

1935 Through legislative action The Stout Institute was authorized to undertake graduate work and to grant the Master of Science degree with designated majors in (1) Industrial Education (2) Vocational Education or (3) Home Economics Education.

The Stout Institute was founded as "Stout Manual Training School" by Senator James H. Stout, of Menomonie, who financed the institution through twenty-two long critical years up to the time of his death in 1910.

The history of The Stout Institute would not be complete without the mention of Lorenzo Dow Harvey. On his retirement from the State Superintendency of Instruction in Wisconsin, Mr. Harvey, at the urgent invitation of Senator Stout, assumed in 1903 the presidency of The Stout Manual Training School and later of The Stout Institute. President Harvey continued in charge of The Stout Institute until the time of his death in June, 1922. In 1923 Burton Edsel Nelson became president, continuing until his retirement in 1945.

AIMS OF THE COLLEGE

The Stout Institute is the Wisconsin state college of industrial and home economics education. It specializes in technical training of men and women for professional work in these fields. While technical training is emphasized at The Stout Institute, the curriculum is designed to give students a well-rounded education. Departments are maintained in the social sciences, English, speech, mathematics, physical science, education, physical education, and music. The Stout Institute believes that men and women should not only be technically trained, but also should be provided with the kind of education which will make them responsible and informed citizens, equip them with an understanding of our changing civilization, and enable them to enjoy the arts of living.

The main task of The Stout Institute is to prepare teachers in industrial, vocational and home economics education. Stout is the only college in America exclusively training students in these fields. Stout not only prepares for the teaching profession, but also for a variety of other work.

Students in industrial education may prepare for technical and executive positions in industry. Industrial education graduates have found advantageous employment as trainers in education departments of industrial plants, in production and planning departments of manufacturing plants, in maintenance departments, as technically trained salesmen, and in various other types of employment in industry.

The home economics courses at Stout provide preparation directed toward a variety of work other than teaching. Students may train for responsible positions as dietitians, teachers and supervisors of nursery schools, managers of cafeterias and restaurants, in commercial demonstration work, in food and textile research, and as writers on home economics problems for magazines and newspapers. Home economics education, for women, regardless of what field a student may plan to enter, is the kind of technical and cultural education which will prepare women for a more satisfying life.

While most of the students come from Wisconsin, almost every state in the Union has been represented in the enrollment at The Stout Institute. Through the years the enrollment at Stout has been more than national in character. In past years as many as thirty-eight states, Canada, Panama, and Peru have been represented. Almost every year students from our territorial possessions have attended The Stout Institute.

Stout graduates are teaching in every state in the Union, in Canada, the Canal Zone, Hawaii, Cuba, and the West Indies.

COLLEGE ASSOCIATION AFFILIATIONS

Soon after The Stout Institute restricted its work to a four-year curriculum, it was accepted by the North Central Association as a member of the teachers college group and two years later was taken into full college membership. Since the formation of the American Association of Colleges for Teacher Education, The Stout Institute has maintained membership in that organization. The college is also a member of the American Council on Education.

BUILDINGS AND GROUNDS

Four large, thoroughly equipped buildings (the Home Economics Building, the Industrial Education Building, the Gymnasium, and the Trades Building) comprise the central plant. In addition there are four dormitories, one hundred sixteen small houses for veterans, a home management house, and an infirmary.

The grounds include spacious lawns for the women's dormitories and veterans' homes, a practice field, tennis courts, and the Burton E. Nelson Athletic Field. During the fall of 1935, a shelter house was constructed, which includes dressing rooms and shower rooms for two teams. The administration plans for the immediate future include the construction of a new library building and a new field house, the site for which the state recently purchased. Funds are available and work will begin as soon as general construction can be undertaken.

The Library

The Library is at the present time housed in the Home Economics Building. It provides a wide range of reference material, particularly on home economics and industrial and vocational education, but is also rich in fields of art, the social and natural sciences, economics, history and government, mathematics and engineering, manufacturing and industry. A large number of books and magazines for purely cultural reading are provided.

Laboratories and Equipment

The shops for the teaching of industrial subjects are all well equipped and kept up-to-date. The Trades Building is devoted exclusively to shops containing all needful equipment for elementary and advanced classes in carpentry, cabinetmaking, general woodwork, auto mechanics, sheet metal, painting and finishing, architectural and machine drafting, and visual education. It has provision for use of all types of visual education equipment. The Industrial Education Building contains shops com-

pletely equipped for work in general mechanics, foundry, printing, general metal, electrical work, and machine shop practice. A physics laboratory and shops for practice teaching are also housed here. Necessary lecture rooms for general subjects are provided throughout the building.

The laboratories for home economics instruction are well equipped and kept modern. All located in the large home economics and administration building, they include units for textiles and arts, nutrition and foods, nursery school, homemaking, and sciences. Lecture and demonstration rooms are comfortable and commodious. Throughout, the equipment is "kept modern" and adequate for all levels of work.

Auditorium

One of the wings of the Home Economics Building houses a large, modern auditorium with a seating capacity of 800. At least once every two weeks an attractive program of an educational or entertainment nature is presented by nationally known speakers or entertainers. The large stage makes possible the appearance of large musical organizations, local and traveling, and provides excellent facilities for work in dramatics.

Dormitories for Women

Bertha Tainter Hall is furnished with all modern conveniences, and is well-lighted, heated, and ventilated. This building was thoroughly remodeled recently, and the interior was completely modernized, redecorated, and largely refurnished.

Tainter Annex adjoining it has been remodeled and modernized throughout. More light and room space are provided. Old bathrooms were removed and new bathrooms installed. Another living room and a sun room were added. The gray stucco on the outside has been replaced by fireproof asbestos shingles which add greatly to the appearance of the building and materially reduce fire hazard.

The Mary Eichelberger Hall has been so named because the building was purchased out of a $20,000 legacy provided for in the will of Mrs. Mary Eichelberger, of Horicon, Wisconsin.

All non-resident freshman and sophomore women are required to live in dormitories. All junior and senior women under twenty-five years of age are also expected to live in dormitories, when accommodations are available.

Dormitories for Men

Lynwood Hall was built for the purpose for which it is used and is in every appointment adequate and complete.

Recently elaborate improvements have been made. These include the enlargement of living and recreational rooms, sound proofing the building, installation of new bath and toilet facilities. Exterior improvements have added materially to the appearance and attractiveness of the building.

Concerning All Dormitories

Room rent in dormitories is payable by semesters, in advance at the beginning of each semester. Board is payable four weeks in advance.

The charge for a room for each student for one semester for eighteen weeks is $76.50. This price applies to all dormitories. A $10.00 advance deposit is required on all rooms.

In Tainter Hall and Annex, the charge for meals is $8.50 per week. A laundry in connection with the women's dormitories provides service to students in those dormitories at a minimum charge. All Stout dining rooms are under the direct supervision of trained dietitians. Balanced meals are carefully planned with the thought in mind that the health of the students is of primary importance.

Rooms in dormitories will be available on the Sunday immediately preceding registration day in the fall. Meals will be served beginning at noon the next day.

All first year entrants and all transfer students must fill out an application form for a room and send it as early as possible to the Director of Dormitories at Tainter Hall. The necessary form is one of the several forms included in the enrollment papers.

All rooms are assigned for the entire academic year. Each room is furnished with new beds and inner spring mattresses, pillows, dresser, study table, chairs, and bookcases. Sheets, pillow cases, and laundrying for same are also supplied. The student must supply towels, blankets or comfortables, a bed spread and curtains. The bed spread and curtains should be arranged for with roommate after assignment of room has been made.

Students are requested not to bring additional furniture, particularly floor lamps. A practical study lamp for the table with rubber insulated cord and plug is permissible and desirable. All such lamps will have to be inspected by the school electrician before they are used. Radios are permitted in students' rooms provided the regulations for student radios are obeyed. A community radio is also supplied.

The Infirmary

The Stout Institute maintains an infirmary for the care of students, where every detail of health is carefully supervised. A resident registered nurse supervises the health of students throughout the college and is on duty at the infirmary. The nurse maintains regular office hours in her rooms in the Home Economics Building. A college physician is available for consultations. Students are given a medical examination annually.

A Student Health fee of $2.50 per semester is paid by all students. This fee insures dispensary service, physical examinations, and three days of hospital care without charge. After the third day a charge of $1.50 a day will be made for meals. Students rooming in dormitories where meals are served will not be charged for meals while in the infirmary.

Any student who is too ill to attend classes should report at once to the school nurse. Students living in Menomonie shall have their parents or guardian notify the school nurse. Cases of severe illness or other serious situations that will enforce prolonged absence should be reported to the Dean of Home Economics or the Dean of Industrial Education.

Home Management House

A thoroughly modern and fully equipped Home Management House located near the Infirmary contains all conveniences and accommodations needed in such a building. Recreation room, store room, and laundry are found in the basement. A large living room, dining room, kitchen, and director's living quarters are on the first floor. On the second floor are comfortable, well-lighted student rooms.

The Tea Room

The Stout Tea Room is used chiefly as a laboratory for the class in applied institution management. Attractive, well balanced, inexpensive meals are served under the direction of the director of institution management. On these occasions, the Tea Room is open to students, faculty, and their friends.

The Cafeteria

The Stout Cafeteria, located in the east end of the Home Economics Building, is used by students, faculty, and their friends. The dining room is modern and colorful. Excellent and inexpensive meals are served daily. Students can obtain adequate meals at from $8.00 to $10.00 per week. The complete cafeteria service is under the direction of the Director of Institution Management. Students are advised to eat their meals in the cafeteria, using meal tickets provided. The cafeteria will open on Monday noon of the first week of the college year.

Other Living Facilities

Accommodations for men and women not living in dormitories may be procured in the city at varying rates, depending upon location and quality of service. Rooms may be had as low as $3.00 per week per person, and table board may be obtained in private homes at $6.00 to $10.00.

ADMISSION TO COLLEGE

The Stout Institute provides three opportunities for registration during the year. Students may register at the beginning of the first semester in September, the beginning of the second semester in January, or at the beginning of the summer session in June.

Admission to college may be secured:

1. By presenting a certificate of graduation from an accredited high school.
2. By submitting evidence of studies successfully pursued in another institution of higher learning.
3. By qualifying as an adult special student.

Prospective students may learn at any time by correspondence with the Registrar whether or not they have the necessary qualifications for admission and upon what basis they may be admitted.

All credentials should be filed sufficiently in advance of the date chosen to permit the Registrar to pass upon them and to issue the proper letter of admission. Candidates for admission in September should have their credentials filed with the Registrar by the first of August. The credentials must in every case include a complete record of all previous secondary school and advanced work.

Persons who plan to enter Stout should fill out and file application for enrollment as early as possible after high school graduation. Blanks will be furnished promptly on request. Applications for admission must be complete and accurate. Failure to include requested information or misrepresentation may be the basis for dismissal. The health certificate, when filled out, must be forwarded to the President before the beginning of the semester. Late registration is discouraged. All students are expected to register on general registration days.

Entrance Requirements

Entrance requirements of The Stout Institute shall be interpreted as graduation from an approved high school or equivalent training. Not less than 15 units shall be accepted.

1. The following units shall be required of all:
   English ..... 3 units
   Algebra ..... 1 unit

2. Two units are to be presented from one of the following:
   Foreign Language, History, Social Science, Science.

3. In addition to the units required under 1 and 2, a sufficient number of units to make a total of fifteen must be offered from groups A and B. Not more than 5 units may be offered from Group B.

Group A	Group B
English and Speech	Agriculture
Foreign Language	Commercial Subjects
History and Social Science	Home Economics
Mathematics	Industrial Arts
Science	Mechanical Drawing
Advanced Applied Music and Art	Optional (2 units)

4. Any deficiency in entrance requirements must be made up. The college will not be responsible for providing facilities for make-up work.

All first year entrants and all transfer students are required to take Freshman Counseling Tests which are given during registration week. A special two dollar fee will be charged those who take the examinations at other than the scheduled time.

A supplementary physical examination is made of all first year students and an annual examination of all students is required. The examination is made by the college physician. The charge for this examination is included in the infirmary fee referred to elsewhere. These credentials, together with an approved statement of rooming arrangements, are required before the enrollment is considered complete.

Transferred Credits

Students entering The Stout Institute who have had any work whatsoever in another institution of higher learning, regardless of whether or not they wish to receive credit for it, must submit complete credentials of both their high school and college work to the Registrar. All such transcripts and supplementary material should be sent at least a month preceding the opening of the session the student desires to enter.

Students who hold bachelors' degrees from other institutions must spend one year in residence and meet the minimum requirements of their major in order to obtain the degree of Bachelor of Science from The Stout Institute.

Sixteen semester hours of approved courses done through extension or correspondence, not more than five semester hours of which shall be correspondence credit, shall be the limit accepted by The Stout Institute for graduation requirements.

Transfer of Records

Students wishing to transfer from The Stout Institute to another institution should request the Registrar to send a transcript of record and letter of dimissal, giving notice of at least one week.

Veterans

Curriculum adjustments will provide for a modified program to meet the needs of students who have had service in the U. S. Armed Forces.

Credit for educational experience in the U. S. Armed Forces will be assigned according to the recommendations of the Guide compiled by the American Council on Education.

REQUIREMENTS FOR GRADUATION

In order to receive a degree, the student not only must gain the required number of credits in the course which he is pursuing, but also must attain a certain standard of scholarship. This standard is fixed by grade points as credits. Grade points are apportioned as follows:

A 3 grade points per semester hour credit—Excellent
B 2 grade points per semester hour credit—Good
C 1 grade point per semester hour credit—Average
D 0 grade point per semester hour credit—Poor
F Failure

Inc. "Incompletes" are given only in cases in which the absence incurred has been due to situations over which neither the student nor the teacher has any control. To secure an Incomplete, a student must have a passing grade in the course at the time of withdrawal.

Attendance Regulations

1. For each unexcused absence in excess of two per class per semester, one negative grade point will be recorded.
2. The day before and the day following a vacation are "no-cut days." One negative grade point will be recorded for each unexcused absence from a class on a "no-cut day."
3. All excuses will be issued by the Dean of Men or the Dean of Women.
4. Students are held responsible for all class work. Make-up will be permitted for excused absences.

Fully registered students at The Stout Institute, in the Division of Home Economics, must complete one hundred and twenty-four semester hours and earn one hundred and twenty-four grade points, plus the requirements in physical education. Students in the Division of Industrial Education must complete one hundred and twenty-eight semester hours and earn one hundred and twenty-eight grade points, plus the requirements in physical education.

Each candidate for graduation must, in addition to meeting the requirements in the major, have two academic minors of fifteen semester hours each.

The minimum residence requirement is thirty-two semester hours and thirty-two grade points to be earned in at least thirty-six weeks of attendance at The Stout Institute. The last year of credit must be earned in residence at The Stout Institute. Candidates for diplomas are required to attend the Commencement Exercises.

THE DEGREE OF BACHELOR OF SCIENCE

The degree of Bachelor of Science is conferred upon all students completing curriculum requirements in the Division of Home Economics and in the Division of Industrial Education. These courses require four years of work beyond the high school. Upon completion of the work of the Education major a diploma is issued, which by statute is made the basis for a life certificate after two years of successful teaching in Wisconsin. This life certificate legally qualifies the holder to teach in the public schools of the state the subjects in which he has taken training. The license is issued by the Wisconsin State Department of Public Instruction.

Students graduating with a major in Dietetics meet the requirements set up by the American Dietetic Association.

PLACEMENT OF TEACHERS

Stout Institute maintains a Placement Office which assists qualified graduates in finding suitable positions as teachers or administrators in the schools of Wisconsin and other states. The number of calls for Stout Institute graduates always exceeds the supply. Junior and senior students have been called upon to meet the needs in an emergency. Salaries of Industrial Education and Home Economics teachers are higher than those in most of the teaching fields. Graduates of Stout Institute hold key positions in industry as well as in education in all states in the union and in many foreign countries.

Revised

EXPENSE ESTIMATES

Estimates on Usual Expenses Incurred by a Student for a Regular Session of Thirty-Six Weeks

Fee for Library (Semester $5.00)	$ 10.00
Fee for Physical Education, Laboratories, and Shops (Semester $30.00)	60.00
Student Health Fee (Semester $2.50)	5.00
Room Average Dormitory Rate (Semester $63.00)	126.00
Laundry (estimated)	35.00
Board-Dormitory Dining Room or Cafeteria (Semester $153.00)	306.00
SSA Membership (Semester $11.50)	23.00
Material for Classes (average)	35.00
	$600.00
Tuition for Non-residents (Semester $100.00)	200.00
Estimated Expenses for Residents	600.00
Estimated Expenses for Non-residents	800.00

The fact that incidental expenses, amusements, traveling expenses, postage, clothing, personal supplies, and the like are not included in the above must be taken into consideration.

Due to the uncertainty in cost ranges it may be necessary to change the above estimates from semester to semester.

Tuition, Regular Session

The tuition charge for non-residents and the definition of non-residents are covered in the following quotation from the Wisconsin statutes:

"Any student attending The Stout Institute who shall not have been

a resident of the state for one year next preceding his first admission thereto shall pay a tuition fee not to exceed two hundred dollars for the school year and a proportionate amount for attendance at the summer session."

Tuition is payable in advance each semester.

Shop and Laboratory Fees

Fees charged for shop and laboratory courses are included in the $30.00 semester fee referred to above. In addition to the shop and laboratory fees students are required to pay for any breakage or damage to buildings for which they are responsible. Fees are payable registration day at the beginning of each semester and summer session. The fee receipt is to be retained by the student to gain admittance to classes. A charge is made for duplicate receipts.

Library Fees

A library fee of $5.00 per semester is charged in addition to the $30.00 general fee charged to all students. For this fee most of the necessary textbooks are furnished from the loan textbook library without any extra charge to students. The reference library is supplied with standard books needed to supplement textbooks in different subjects.

The reading room is supplied with daily and weekly newspapers, educational, literary, and technical periodicals adapted to the needs of the students and available for their use.

In addition to The Stout Institute library, students have access to the Memorial Free Library one block from The Stout Institute main buildings. The combined facilities of the two libraries make available 52,000 volumes, exclusive of public documents.

Incidental Fees

Diploma Fee	$5.00
Special Examination Fee (taken in special cases only)	$2.00
Lock Deposit $1.00—Refunded	$ .75

SCHOLARSHIPS

Mary J. Eichelberger Fellowship

Six fellowships will be awarded each year to graduate students who are qualified to teach or to assist in class and laboratory work. The sum of $360.00 will be paid to each fellow. Selection of candidates is made by a committee of deans and is based upon qualification for a particular assignment on the campus and professional promise.

Legislative Scholarships

Out of state tuition exemptions in the amount of $200.00 per year will be granted in accordance with the provisions in the Wisconsin Statutes.

The Stout Institute also grants scholarships which include exemptions from fees for materials in the amount of $60.00 per year. The Wisconsin Statutes provide that the Board of Trustees of The Stout Institute may grant such scholarships to high school graduates of public or private schools who during their high school courses ranked first in scholarship in Wisconsin high schools enrolling less than 250 students; to

those ranking first and second in scholarship in Wisconsin high schools enrolling 250 to 750 students; and to those ranking first, second, and third in scholarship in Wisconsin high schools enrolling 750 or more students. In case the person or persons eligible for scholarships under conditions cited above do not elect to enroll at The Stout Institute, scholarships may be granted to graduates who were next highest in scholastic rank in Wisconsin high schools.

Alumni Scholarships

In addition to scholarships offered by the college, The Stout Institute Alumni Association has set up and maintains a scholarship award fund providing several sixty-dollar cash awards each year. Any prospective student interested in one of these awards should either personally contact a Stout alumnus or write directly to the Secretary of the Stout Institute Alumni Association at The Stout Institute, Menomonie, Wisconsin. The secretary can assist the prospective student in contacting a Stout alumnus where such assistance is needed. Any alumnus will be glad to give all the information needed and answer any questions which may arise concerning enrollment, attendance, and college life at The Stout Institute.

Epsilon Pi Tau

Epsilon Pi Tau, national honorary scholastic fraternity in industrial arts education and vocational industrial education, is represented on the Stout campus by Theta Chapter. The chapter gives certain scholastic financial awards to individuals in terms of professional promise.

Manual Arts Players

The Manual Arts Players Chapter of Alpha Psi Omega will offer a scholarship of twenty-five dollars to a student outstanding in the field of dramatics.

Pallas Athene

The Pallas Athene Society grants a scholarship of twenty-five dollars each year to a sophomore woman student chosen on the basis of scholarship, participation in extra curricular activities, and her worthiness as a representative Home Economics student of Stout.

Philomatheans

The Philomathean society grants a twenty-five dollar award to a freshman Home Economics major. The student is selected on the basis of desirable personal qualities, loyal participation in college activities, and excellent scholarship.

Phi Upsilon Omicron

Tau Chapter of Phi Upsilon Omicron, national honorary scholastic fraternity in Home Economics, grants an annual scholarship of twenty-five dollars to an outstanding freshman woman majoring in Home Economics.

Foreign Students

A yearly grant of $300 will be available alternately for one Industrial Education and one Home Economics student residing outside of the United States and its territories.

STUDENT LOANS

In 1921 Mrs. Mary J. Eichelberger of Horicon, Wisconsin willed to The Stout Institute twenty thousand dollars in preferred stocks and cash. This legacy came to the institution without stipulation as to the purpose or use to which it was to be put. For several years no use was made of this fund.

In 1942 the Administration recommended that the earnings from the principal and such part of the principal as might be necessary should be used in making loans to worthy and capable students when in need. No part of the principal has been used. The fund has, through dividends and interest additions, increased to a considerable sum. Ten thousand dollars is now being used by students in attendance or is being repaid by students who have graduated.

Students who in the opinion of the Committee need financial aid may be granted a loan from the Student Loan Fund. The Committee considers the scholarship, character, personality, and professional promise of the applicant in granting a loan. Freshmen are not eligible to use this money. The loans are payable within one year after the student leaves the college.

SELF-SUPPORT AND STUDENT AID

While there are opportunities for a student attending Stout to earn a part of his expenses, it should be borne in mind that the courses are designed to require the whole of his time and effort and that the amount of outside work he will be able to do cannot be great. For this reason students whose funds are insufficient to meet their expenses for at least the first year are not encouraged to enter college. Students working to earn part of their expenses are expected to carry a reduced program.

As far as possible, students are employed for extra work in the library, laboratories, and cafeteria, and as janitors. Some opportunities offer themselves outside of school agencies. A great deal depends, of course, upon the ability and energy of the individual, and his willingness to do any kind of work. The best places are usually obtained by those who have been in college for some time and have established themselves as good workers.

Stout does not guarantee employment. It does, however, make a special effort through its college employment bureau to locate students needing work as a means of paying expenses.

COLLEGE ACTIVITIES

The Stout Institute offers a wide range of student activities. Besides the regular classes in physical education for men and women, Stout is represented each year by strong football, basketball, baseball, and track teams. Glee clubs, one for the men and one for the women, have been maintained for a number of years. The Symphonic Singers, an A Cappella choir, and a band and an orchestra add greatly to the life of the

school. All musical organizations are under the supervision of a trained and capable director. Dramatics is centered in the organization known as the Manual Arts Players Chapter of Alpha Psi Omega. A permanent Lyceum committee is maintained and presents each year a five or six number course of the very best talent available. Assemblies bring to the students many excellent lecturers, entertainers, musicians, artists and musical organizations of outstanding ability. The college paper, **The Stoutonia,** is published each Friday. **The Tower,** the college yearbook, is also a product of student activities at Stout.

All of these organizations, through contests, concerts, plays, programs, contribute to the social life of the school. The management of admission, booking and relationship with various student activities is through the Stout Student Association, the officers of which are elected each spring at a regular all-school election.

The membership charge, $23.00 per year, is payable by all students, $11.50 at the beginning of each semester. This fee gives every student of the college admission to all athletic events including football, basketball, and baseball; to all concerts by student musical organizations including the Band, Orchestra, Men's Glee Club and Women's Glee Club; to productions of the Manual Arts Players; to all lyceum and assembly programs and other entertainment under the supervision of the student association; to educational and other lectures; and to all the student dances given under the auspices of the student association. The fee also covers the cost of the subscription to **The Stoutonia,** the student weekly newspaper; **The Tower,** the college annual; and class membership. The Stout Student Association membership has eliminated the necessity for the many former student drives for the financial support of the usual college activities. The only exception are religious and social organizations. The Association has added much to the social atmosphere of the school and has systematized and made harmonious all school activities.

REFUNDS

Students who are compelled to withdraw from college by reason of illness, not due to poor physical conditions or ill health existing before entering, are entitled to a refund of tuition from the date when notice of such withdrawal is received before the end of the semester. Any request for withdrawal from college must be accompanied by written permission of his or her parents.

Students boarding in the dormitories are also entitled to a refund of whatever amount has been advanced for board beyond the date when notice of withdrawal is received.

Refund for advance payment of room rent in the dormitories is allowed from the date when the room is again rented. Effort is made to get an occupant at the earliest date possible.

As books and supplies for which fees are charged have to be bought in advance in quantities necessary to supply the entire enrollment, no refund of fees is made in any case.

GRADUATE PROGRAM

The graduate program at The Stout Institute is established to meet the present-day needs of teachers and administrators of Home Economics Education and Industrial Education. The graduate curriculum is planned so that prospective teachers and administrators may earn the degree of Master of Science with the major in Industrial Education, Home Economics Education, Home Economics, or Vocational Education. The teacher certification laws, the trade experience, the educational preparation, and professional objectives determine the type of graduate program essential to meet those specialized needs.

OBJECTIVES

The objectives of the graduate curriculum are:

1. Extension of the broad general culture of teachers.
2. Preparation in research procedures in home economics and industrial education.
3. Continued study of specific competency in one of the major fields; Home Economics, Industrial Education, or Vocational Education.
4. Attainment of advanced skills in professional techniques or exploring new techniques.
5. Opportunity for concentrated study of the more strictly professional phases of teaching for those whose undergraduate study did not make adequate provisions.
6. Provision for the development of desirable personal and social qualities of teachers.

ADMISSION

Admission requirements for the graduate program of The Stout Institute are as follows:

General Requirements: Students may enroll for graduate courses who meet the following requirements: (a) Received the Bachelor's Degree from The Stout Institute, or an accredited college or university. (b) Graduated with a C plus (1.5) grade point average in undergraduate course work.

Application: Those applying for admission to graduate studies should fill out the application form located in the back of this bulletin. Send application forms to the Director of Graduate Studies, The Stout Institute, Menomonie, Wisconsin. Applications for admission must be complete and accurate. Failure to include requested information or misrepresentation may be basis for denying the applicant admission. Late registration is discouraged. All students are expected to register on general registration days.

Admission to Candidacy: 1. Admission to the graduate studies program does not of itself imply "admission to candidacy" for the master's degree. Admission to candidacy is determined only after the student has successfully completed not less than 12 semester hours of graduate work at The Stout Institute. 2. A student desiring to be admitted to candidacy for a master's degree must make application with the Director of Graduate Studies at least one month prior to the opening of the semester in which the degree is sought. 3. The student must meet all special admission requirements, including the qualifying examination, for the major

fields (Home Economics, Home Economics Education, Industrial Education, and the Vocational major).

Transcript of Credits: Students from colleges other than The Stout Institute must have their transcripts sent to the registrar not less than one month prior to the opening of school. Important consideration of the graduate committee in granting approval on applications will be that the student have a grade point average of 1.5 ("C" plus) as an undergraduate.

Evidence of satisfactory experience is desirable. Students whose admission status has not been clearly established may be accepted on probation.

Transfer of Credits: Graduate credit from other institutions is limited to six semester hours. This credit must be recorded as graduate credit on an original transcript. These credits must apply to the student's sequence of courses at Stout. (Consult Director of Graduate Studies).

Seniors (Split Program): Qualified seniors who do not require full time to complete their undergraduate work within the enrollment period of one semester or one summer session may enroll for graduate courses with the permission of the Dean of the undergraduate school and the Director of Graduate Studies. This permission must be obtained prior to registration; credit earned prior to this will not be accepted as graduate credit. The limit of the total hours carried should not exceed that set as the normal load. Full residence will not be granted for the period in which such work is taken.

Special Requirements: Students who meet the general requirements for admission to graduate work must meet the undergraduate standards in order to be admitted to the graduate program for the following major fields:

Special Requirements—Major Fields

Home Economics Major — Undergraduate credits required: Home Economics courses, 42 semester hours; Education courses, 8 semester hours; Related Science, 20 semester hours. A variation of six semester hours is permitted.

Home Economics Education Major—Undergraduate credits required: Home Economics courses, 42 semester hours; Education courses including general psychology, 28 semester hours. A variation of 6 semester hours is permitted in each field provided the total is 70 semester hours.

Industrial Education Major—Undergraduate credits required: Technical shop and drafting courses, 42 semester hours; Education courses including general psychology, 28 semester hours. A variation of 6 semester hours is permitted in each field provided the total is 70 semester hours.

Vocational Major—Certified Vocational teachers with a Bachelor's degree in the fields of agriculture, commerce, engineering, industrial education and home economics education who possess 42 technical hours in their specialized fields, and 28 semester hours in education including general psychology may be admitted to graduate work for a vocational major. A variation of 6 semester hours in technical or education field is permitted, provided the total is 70 semester hours. Students are required to secure statements of certification as vocational teachers from their respective State Vocational Directors.

GRADUATE TUITION AND FEES

Tuition for non-residents of Wisconsin per semester	$100.00
Graduate course fee per semester hour credit	3.00
Health service fee	2.50
Activities fee	11.00
Special examination fee	2.00
Diploma fee	5.00
Thesis or investigation binding fee	
Thesis, each	1.25
Investigation, each	.35

Any expense incurred by graduate students during the conduct of research problems, such as printing of questionnaires, maps, charts, postage, typing of reports, etc., is the responsibility of the student and must be supplied and paid for by the student. Bound copies of Theses or Investigations will be sent to the writer via postage collect.

All graduate students are required to submit for correction one typewritten copy of the rough draft of a thesis or investigation, four typewritten copies of the final thesis (plan A), and three typewritten copies of the final investigation (plan B).

Students Taking Both Graduate and Undergraduate Courses (Split Program)

Tuition for non-residents of Wisconsin per semester	$100.00
Graduate course fee per semester hour credit	3.00
Undergraduate general fee	30.00
Health service fee	2.50
Activities fee	11.00
Special examination fee	2.00
Diploma fee	5.00
Lock deposit ($1.00) refunded	.75

GENERAL GRADUATE REQUIREMENTS

The graduate requirements for the Master of Science Degree with a major in Industrial Education, Home Economics Education, Home Economics, or Vocational Education are as follows:

1. Completion of 30 semester hours in one of the fields—Industrial Education; Home Economics Education; Home Economics; or Vocational Education.

   Industrial Education
   Major Industrial Education—20 semester hours
   Minor Education—Science—10 semester hours

   Home Economics Education
   Major—Home Economics Education—20 semester hours
   Minor—10 semester hours in Home Economics

   Home Economics
   Major—20 semester hours in one of the following fields: Food and Nutrition; Clothing, Textiles and Related Art.
   Minor—10 semester hours selected from courses in the following fields: Home Economics Education; Food and Nutrition; Family Life; and Clothing, Textiles, and Re-

lated Arts and Sciences. Courses in the minor field should not be selected by the student from the major field sequence of courses.

Vocational Education

Major—Vocational Education—20 semester hours in Industrial Education or Home Economics Education.

Minor—10 semester hours in Education, Science, Social Science, Home Economics Education, or Home Economics.

2. Fifty percent of the semester hours' credit required for the Master's degree must be scheduled in graduate courses (500 series).
3. All senior college courses (300-400) series must be approved on the basis of the individual's needs as indicated by present objectives and previous courses.
4. Not more than three seminars, six semester hours in problems in technical shop fields, or six semester credits in workshops may be used for graduate credit.
5. Graduate courses required of all students.
   Ed. 501 Research Procedures—2 semester hours.
   I. E. or H. E. 510 Problems in Industrial Education or Home Economics Education—2 semester hours.
   Ed. 561 Educational Statistics is recommended for all students who have not had the course as an undergraduate.
6. Transferred graduate credit from other institutions is limited to six semester hours. This credit must be recorded as graduate credit on original transcript. These credits must apply to student's sequence of courses at Stout. (Consult Director of Graduate Studies.)
7. Requirements for the Master's degree must be completed within a six year period. Requests for extensions will be given consideration by the Graduate Committee.
8. Residence requirements are one academic year or five six-week summer sessions. The acceptance of six semester hours of graduate credit from another institution will reduce the residence requirement to four six-week summer sessions or three quarters (27 weeks) of the regular academic year.
9. The standard of work on the graduate level requires that the candidate for the master's degree must obtain a "B" average for 24 semester hours of course work for Plan A; or 26 semester hours for Plan B.
10. "Incompletes" are given in cases in which the absence incurred has been due to situations over which neither the student nor the instructor has any control. However, the student must have a passing grade in the course at the time of withdrawal. In graduate work, incompletes are also given in cases in which completion of research studies requires more time than is available during the course. In such cases, the incomplete must be made up within three years following the end of the course.
11. Candidates for the Master of Science degree must write the **Qualifying Examination.** This examination is used by the graduate committee to evaluate the student's fitness to continue work

on the graduate level. Students must complete six hours of graduate work before taking the examination. Notice will be posted informing students as to the time and place of the examinations.

THESIS AND INVESTIGATION REQUIREMENTS
GENERAL INSTRUCTIONS FOR THESIS — PLAN (A) AND INVESTIGATIONS — PLAN (B)

The graduate program at The Stout Institute provides opportunities for students to acquire preparation in the understanding, interpretation, and application of research procedures. All students are required to take the basic courses: Ed. 501 Research Procedures, and I. E. 510 Problems in Industrial Education, or H. E. 510 Problems in Home Economics Education. Two plans are available for students to satisfy the research requirements. The two plans are as follows:

PLAN (A) **Thesis** in major field involving original research. The research to be prepared according to the approved form. Register for Ed. 570, Thesis, for 2, 4, or 6 semester hours for a total of 6 semester hours.

PLAN (B) **Investigation** must be selected in terms of the student's professional needs, abilities, and interests and prepared according to the approved form. Register for Ed. 571, Investigation, for 4 semester hours.

The student, in conference with a major adviser, should select the plan that meets his professional needs and interests. In a series of conferences with advisers developing the plan for the thesis or investigation, certain considerations must be constantly recognized:

1. The study should be of significance in its field.
2. The study should be clearly limited.
3. The study should raise distinct questions.
4. The data for research must be available to the student conducting the study.
5. The problem should be within the field and ability of the student.

The problem must not be a mere compilation based on individual personal opinion. Where new combinations and new applications appear in the study, they should be based upon the expressed opinion of competent persons, or reliable objective data. Preparation of courses of study and curriculum plans derived from class techniques do not constitute acceptable theses but may be used for Plan (B). Studies of this type, if used in Plan (A), should involve survey, analysis, or evaluation procedures and should not be titled as courses of study.

INSTRUCTIONS FOR PLAN (A)

The general instructions for Plan (A) are as follows:

1. Consult the Director of Graduate Studies during your first enrollment period for the purpose of selecting your major faculty adviser.
2. Consult your major adviser to plan total graduate program, to discuss possible thesis problems, and to integrate the problem with your graduate program.

3. Consult your major adviser about the selection of a thesis adviser who directs the student's research.
4. Enroll for course Ed. 570, Thesis. The student may enroll for 2, 4, or 6 semester hours. There must be a total of six semester hours, however, when the Thesis is completed. Students should start on the Thesis not later than the third quarter during the regular session or later than the third summer session.
5. Fill out three Preliminary Statement sheets when the Thesis adviser has accepted the plan for the study. Secure these statement sheets from the Director of Graduate Studies and return them to the Director when they have been properly filled out. When completed, the tentative statement sheets are distributed as follows:
   a. One copy to the student.
   b. One copy to the Director of Graduate Studies.
   c. One copy to the Thesis adviser.
6. Secure the Form for Recording the Thesis in Progress from the Director of Graduate Studies. Fill out the form and return it to the Director promptly. This form is essential to protect the investigator's priority rights for the problem.
7. Secure the Form for Checking Preliminary Techniques and Devices for Theses from the Director of Graduate Studies. Check all techniques and devices to be used in the study. When all the techniques and devices have been prepared, secure the signature of the faculty member who is responsible for the various techniques and devices to be used in the study.
8. Secure a copy of the instructions for the English Outline from the Director of Graduate Studies. Prepare an English outline for your study.
9. Check the progress of your study with your Thesis adviser periodically.
10. Purchase a **Manual For Writers of Dissertations** by Kate L. Turabian from the Business Manager's office, The Stout Institute. Secure a **Format of the Investigation** for writing theses and specified course papers from the Director of Graduate Studies. In all cases of style that are not covered in the format issued by the Director of Graduate Studies, the student should follow the instructions in the manual by Turabian.
11. Secure a **Form for Checking the Thesis for Plan (A)**, from the Director of Graduate Studies. When the student has completed the first draft (rough draft) of the study, he should present it to each of the faculty checkers for their review and signatures. When the first draft of the study has been checked by the faculty members, the student should bring it to the Director of Graduate Studies for instructions for typing the final copy. Four (4) copies of the study should be typed if the student desires a personal copy. When the final copy has been typed, the student should again secure the signatures of the faculty checkers on the **Form For Checking The Thesis.** This final check indicates that the thesis is acceptable and that the student is eligible for the final oral examination.

12. Secure **Thesis Abstract Form** from the Director of Graduate Studies. Fill out this form and return it to the Director of Graduate Studies prior to the oral examination.
13. When all of the final copies of the thesis have been checked, present them to the Director of Graduate Studies. Arrangements for the final oral examination may then be made.
14. Final Oral Examination—Clearance for the Final Oral Examination is dependent on the satisfactory completion of the following:
    a. **Student Credit Sheet**
        (1) Obtain copy from Director of Graduate Studies.
        (2) Obtain signature of Registrar on this sheet, and
        (3) Return to the office of the Director of Graduate Studies.
    b. Completion and acceptance of **Thesis Abstract Form.**
    c. The date and hour for the Final Oral Examination will then be set by the Director of Graduate Studies.

INSTRUCTIONS FOR PLAN (B)

The purpose of Plan (B) is to permit graduate students to secure additional course work. Students taking Plan (B) will register for Ed. 571, Investigation, for 4 semester hours' credit. In addition to the investigation, the student must complete a total of twenty-six semester hours of course work. Graduate students matriculating in September, 1949, and others who have not already started on Plan (B) may elect this new plan. The general instructions for Plan (B) are as follows:

1. Consult the Director of Graduate Studies during the first enrollment period for the purpose of selecting your Major Adviser.
2. Consult with your Major Adviser to plan the total graduate program, to discuss possible Investigation problems, and to select a tentative sequence of courses.
3. Enroll in Ed. 571, Investigation, for 4 semester hours' credit. The Investigation should be selected in terms of the student's professional needs, abilities, and interests.
4. In consultation with your Major Adviser, select an Investigation Adviser who will be responsible for the Investigation. This Investigation problem should be prepared according to research methods as presented in courses Ed. 501, Research Procedures, and I. E. 510, Problems in Industrial Education, or H. E. 510, Problems in Home Economics Education.
5. Fill out three **Preliminary Statement Sheets** when the Investigation Adviser has accepted the plan for the study. Secure these forms from the Graduate Office and return them to this office when they have been properly filled out. When completed, the tentative statement sheets are distributed as follows:
    a. One copy to the student
    b. One copy to the Director of Graduate Studies
    c. One copy to the Investigation Adviser
6. Secure the **Form for Recording the Investigation in Progress** from the Graduate Office. Fill out the form and return to this office immediately.

7. Secure the **Form for Checking the Preliminary Techniques and Devices for Investigations** from the Graduate Office. Check all techniques and devices to be used in the study. When all the techniques and devices have been prepared, secure the signature of the faculty member who is responsible for the various techniques and devices to be used in the study. Use of this form is optional with the faculty adviser.
8. Secure a copy of the instructions for the **English Outline** from the Graduate Office. Prepare a detailed outline for your study.
9. Purchase a **Manual For Writers of Dissertations by** Kate L. Turabian from the Business Manager's Office, The Stout Institute. Secure a **Format of the Investigations** for writing Theses and Investigations from the Graduate Office. In all cases of style that are not covered in this format, the student should follow instructions in the manual by Turabian.
10. Secure a **Form for Checking Investigation** of less than six semester hours from the Graduate Office. The signatures required should be obtained at the successful completion of the rough draft and again when the final copies have been approved.
11. After the first or rough draft has been checked by the Investigation Adviser, and necessary corrections have been made by the student, arrangements should be made through the Graduate Office for typing the final copies. Three copies of the Investigation are required and are distributed as follows:
    a. Student
    b. Investigation Adviser
    c. Graduate Office
12. Secure **Thesis Abstract Form** from the Director of Graduate Studies. Fill out this form and return it to the Director of Graduate Studies prior to the oral examination.
13. Final Oral Examination—Clearance for the Final Oral Examination is dependent on the satisfactory completion of the following:
    a. Student Credit Sheet
        (1) Obtain copy from Director of Graduate Studies,
        (2) Obtain signature of Registrar on this sheet, and
        (3) Return to the office of the Director of Graduate Studies.
    b. Completion and acceptance of **Thesis Abstract Form.**
    c. The date and hour for the Final Oral Examination will then be set by the Director of Graduate Studies.

GRADUATE OFFERINGS

The graduate program of The Stout Institute is organized in terms of the integrated five-year program and in terms of major and minor preparations in the field of Industrial Education, Home Economics Education, Home Economics, or Vocational Education.

The Integrated Five-Year Program: Leaders in teacher education have long recognized that five years are essential to prepare qualified teachers. There are many courses in teacher preparation that cannot be included in a four year program. A sheet called Basic Areas of Educa-

tional Preparation is used for the control of student-faculty cooperative planning in terms of a balanced program and professional objectives. Each graduate student will secure one of these sheets from The Director of Graduate Studies and select a major faculty adviser. The basic areas are philosophy of education, psychology, curriculum construction, research procedures, administration, supervision, special professional fields, instruction, social and economic competency, guidance, measurements and evaluation, and field service problems. Students should select courses in terms of undergraduate deficiencies, professional objectives, and major and minor fields.

THE MAJOR AND MINOR INDUSTRIAL EDUCATION

Industrial Education Major—The requirements for the Master of Science degree with a major in Industrial Education are as follows:

Thirty semester hours are required with a distribution of credits as follows:

Twenty semester hours selected from the courses listed for Industrial Education major including one of the following plans:

Plan (A) Thesis in major field involving original research. The research to be prepared according to the approved form. Register for Ed. 570, Thesis, for 2-4-6 semester hours, for a total of 6 semester hours.

Plan (B) A 4 semester hour investigation to be selected in terms of the student's professional needs, abilities, and interests and prepared according to the approved form. Register for Ed. 571, Investigation, for 4 semester hours.

Ten semester hours from the courses listed for the minor in Industrial Education.

COURSES

Industrial Education Courses—Major			Sem. Hrs.
Ed.	401	Guidance	2
Ed.	441	Educational Evaluation	2
Ed.	459	Curriculum Procedures I (Graphic Analysis)	2
Ed.	472	Coordination	2
Ed.	480	Theory and Organization of General Shop	2
Ed.	500	Philosophy of Modern Education	2
Ed.	501	Research Procedures	2
Ed.	502	Principles of Supervision	2
I.E.	506	Problems in Supervision	2
I.E.	510	Problems in Industrial Education	2
I.E.	514	Problems in Technical Fields	2
Ed.	514	Vocational Psychology	2
I.E.	516	Problems in Coordination	2
I.E.	520	Labor and Industrial Relations	2
I.E.	526	Administration	2
Ed.	531	Problems in Guidance	2
I.E.	533	Survey Procedures	2
I.E.	537	Curriculum Procedures III (Course Development)	2
I.E.	557	Problems in Graphic Arts	2
I.E.	560	Problems in Audio-Visual Education	2

Ed.	568	Curriculum Procedures II (Trade and Job Analysis)	2
Ed.	570	Thesis	6
Ed.	571	Investigation	4

Courses from the vocational major may be selected for the Industrial Education major.

Industrial Education and Vocational Education Minor (Education)

Ed.	360	Audio-Visual Education	2
S.S.	407	History of Americas	4
S.S.	409	Recent History of U. S.	2
S.S.	410	Modern World	4
S.S.	411	Social Problems	2
S.S.	417	American Politics	2
Sc.	427	Physics IV—Electronics	3
Ed.	513	Personality and Mental Health	2
Ed.	555	Psychology of Learning	2
Ed.	561	Educational Statistics	2

VOCATIONAL EDUCATION

The requirements for the Master of Science Degree with a major in Vocational Education are as follows:

Candidates must meet the requirements of The Stout Institute for the Bachelor of Science degree with a major in Vocational Education. They also must be certified vocational teachers.

Thirty semester hours are required with a distribution of credits as follows:

Twenty semester hours selected from the courses listed for Vocational Education major, including one of the following plans:

Plan (A) Thesis in major field involving original research. The research to be prepared according to the approved form. Register for Ed. 570—Thesis, for 2-4-6 semester hours, for a total of 6 semester hours.

Plan (B) A 4 semester hour investigation to be selected in terms of the student's professional needs, abilities, and interests and prepared according to the approved form. Register for Ed. 571, Investigation, for 4 semester hours.

Ten semester hours from the courses listed for the minor in Vocational Education.

COURSES

Vocational Education Courses (Industrial Education Division)

Major			Sem. Hrs.
Ed.	303	Educational Psychology	2
Ed.	401	Guidance	2
Ed.	402	Philosophy of Vocational and Adult Ed.	2
Ed.	403	Workshop in Trade and Industrial Education	2
Ed.	407	Teaching Trade and Industrial Subjects	2
Ed.	441	Educational Evaluation	2
Ed.	443	Problems in Teaching Trade and Ind. Subj.	2
Ed.	459	Curriculum Procedures I (Graphic Analysis)	2
Ed.	470	Conference Leadership	2
Ed.	472	Coordination	2
Ed.	475	Interviewing Techniques	2

Ed.	490	Workshop in Tests and Meas. in Counseling	2
Ed.	491	Workshop in Occ. Inf. and Guidance	2
Ed.	492	Workshop in Admin. of Voc. and Adult Education	2
Ed.	501	Research Procedures	2
I.E.	501	Occupational Hygiene and Safety	2
I.E.	506	Problems in Supervision	2
I.E.	510	Problems in Industrial Education	2
Ed.	514	Vocational Psychology	2
I.E.	514	Problems in Technical Fields	2
I.E.	515	Problems in Administration of Voc. Ed.	2
I.E.	516	Problems in Coordination	2
I.E.	519	Problems in Apprenticeship Training	2
I.E.	526	Administration	2
I.E.	527	Area Vocational Schools	2
Ed.	531	Problems in Guidance	2
I.E.	533	Survey Procedures	2
I.E.	537	Curriculum Procedures III (Course Development)	2
I.E.	557	Problems in Graphic Arts	2
I.E.	560	Problems in Audio-Visual Education	2
Ed.	568	Curriculum Procedures II (Trade Analysis)	2
Ed.	570	Thesis	6
Ed.	571	Investigation	4

VOCATIONAL TEACHER CLASSIFICATION

Classification Requirements — Wisconsin Vocational Teachers. The courses referred to as classification courses for Wisconsin Vocational Teachers are as follows:

For All			Sem. Hrs.
Ed.	303	Educational Psychology	2
Ed.	401	Guidance	2
Ed.	402	Philosophy of Vocational and Adult Ed.	2
		Elementary Economics	4
		Socio-Economic Electives	4
For Home Economics			
Ed.	413	Teaching Voc. and Ad. Homemaking	2
Ed.	416	Probs. in Teach. Voc. and Ad. Homemaking	2
For Industrial Education			
Ed.	407	Teaching Trade and Industrial Subjects	2
Ed.	443	Problems in Teaching Trade and Industrial Sub.	2

(For detailed information, see Teacher Training Series Bulletins—Wisconsin State Board of Vocational and Adult Education.)

HOME ECONOMICS VOCATIONAL EDUCATION

Candidates for the Vocational Major in Home Economics Education must meet the requirements of The Stout Institute for the Bachelor of Science degree with a major in Vocational Education. They must also be certified vocational teachers. Courses may be selected from the Home Economics Education major or from the Home Economics major. The student should select courses in terms of professional needs with the assistance of the faculty adviser. Twenty semester hours are required

in the major field and ten semester hours are required in the minor field. All students are required to include Plan (A) or Plan (B) in their graduate program.

GRADUATE STUDIES IN HOME ECONOMICS

The graduate program leading to a Master of Science degree offers advanced students an opportunity to prepare for executive and administrative positions of leadership in the profession. Intensive and specialized courses are provided to enable students to prepare for selected professional objectives. Regardless of the major selected, the following general requirements must be met.

General Requirements

1. The candidate for the Master's Degree must select either Plan (A) or Plan (B). For detailed information concerning these two plans, see Thesis and Investigation Requirements.
2. Plan (A) or Plan (B) papers must be completed and in the hands of the advisers ten days before the scheduling of an oral examination or the end of the semester. It is not feasible for advisers or faculty members to direct studies or to offer detailed guidance through correspondence on either Plan (A) or Plan (B).
3. Special committee: The candidate for the degree of Master of Science in Home Economics must select two members of the faculty to serve as her special committee. These are selected with the approval of the Dean of the Division of Home Economics, who is a member of all graduate committees. One of these selected members who is chairman of the committee must represent the field of concentration; the other may be chosen in a related field, depending upon the program selected by the candidate.

   The committee members' consent to serve, together with the plan for graduate study, must be filed with the Dean of the Division of Home Economics and the Director of Graduate Studies on the proper blank as soon as possible after the initial registration for graduate studies.

   Since admission to graduate status does not necessarily imply that the student is a candidate for an advanced degree, some students find it desirable to take courses without making the above plans. If such a student should decide to become a candidate for an advanced degree, credits will be evaluated by the Graduate Committee. All requirements must be met as outlined in the selected major.

HOME ECONOMICS EDUCATION

This program is directed primarily toward the extension of the professional training of home economics teachers. Graduate work in this area is becoming increasingly essential because of present-day demands for higher degrees. This program is designed also for those who wish to enter the fields of supervision, administration, or teacher education.

COURSES

Home Economics Education Courses — Major			Sem. Hrs.
Ed.	360	Audio-Visual Education	2
Ed.	401	Guidance	2

Ed.	402	Philosophy of Voc. and Adult Education	2
Ed.	413	Teaching Voc. and Adult Homemaking	2
Ed.	415	Workshop in Voc. and Adult Homemaking	2
Ed.	416	Problems in Teach. Voc. and Adult Homemaking	2
Ed.	436	Course Development	2
Ed.	441	Education Evaluation	2
Ed.	451	Evaluation in Home Economics Education	2
Ed.	490	Workshop in Tests and Measurements in Counsel.	2
Ed.	472	Coordination	2
Ed.	500	Philosophy of Modern Education	2
*Ed.	501	Research Procedures	2
Ed.	502	Principles of Supervision	2
H.E.	506	Problems in Supervision	2
Ed.	508	Curriculum Studies in Home Economics	2-4
H.E.	510	Problems in Home Economics Education	2
Ed.	513	Personality and Mental Health	2
Ed.	520	Current Problems in Home Economics Education	2
H.E.	526	Administration	2
Ed.	531	Problems in Guidance	2
Ed.	555	Psychology of Learning	2
Ed.	561	Educational Statistics	2
*Ed.	570	Thesis	6
*Ed.	571	Investigation	4
		Related Arts and Science Courses	5

Minor: 10 semester hours of Home Economics courses to be selected from the 400-500 series.

* Required courses.

FOOD AND NUTRITION

This program is designed to increase the professional knowledge and competency of those engaged in the food and nutrition fields. Specialization in these areas may lead to advanced positions in teaching, institution management, dietetics, and nutrition work in schools, public health service, or social welfare organizations. Graduate work in food and nutrition also offers training for students interested in preparing for positions in food demonstration, research, home service, and a wide range of home economics positions in business.

COURSES

Food, Nutrition, Dietetics, and Institutional Management Courses — Major			**Sem. Hrs.**
H.E.	300	Applied Institution Management	3
H.E.	310	Nutrition and Dietetics	3
H.E.	328	Institution Administration	3
H.E.	400	Food Demonstrations	2
H.E.	418	Diet in Disease	3
H.E.	423	Planning and Equipping Home Econ. Laboratories	2
H.E.	438	Experimental Food	3
Sci.	442	Community Hygiene	2 or 3
H.E.	443	School Food Service	2-3
H.E.	446	Food Preservation	2

H.E.	452	Institution Food Preparation	3
*Ed.	501	Research Procedures	2
H.E.	501	Trends in Nutrition	2
H.E.	510	Problems in Home Economics Education	2
H.E.	545	Workshop in Foods	2 or 4
H.E.	556	Advanced Experimental Foods	3 or 4
*Ed.	570	Thesis	6
*Ed.	571	Investigation	4

Minor. 10 semester hours in any of the following areas or a combination: Education, Clothing and Textiles, Family Life, Related Arts and Sciences.

* Required Courses.

CLOTHING, TEXTILES, AND RELATED ART

Clothing, Textiles, and Related Art Courses — Major			Sem. Hrs.
Art	332	Advanced Design	2
H.E.	316	Clothing Economics	2
Art	323	Problems in House Furnishing	3
Art	400	Crafts	2
Art	410	Pottery	2
H.E.	412	Applied Dress Design	3
H.E.	414	Children's Clothing	2
Art	430	Art History	2
Art	436	Costume Design	2
Art	460	Creative Arts	3
H.E.	471	History of Costume	2
H.E.	472	Advanced Textiles	2
H.E.	500	Tailoring	3
*Ed.	501	Research Procedures	2
H.E.	510	Problems in Home Economics Education	2
Art	526	Seminar in Related Art	2
H.E.	544	Workshop in Clothing	2
*Ed.	570	Thesis	6
*Ed.	571	Investigation	4

Minor: 10 semester hours in any of the following areas or a combination: Education, Food and Nutrition, Family Life, Related Arts and Sciences.

* Required Courses.

SUMMER SESSION

The 45th and the 46th summer sessions of The Stout Institute will be held during the summers of 1950 and 1951. The summer sessions open two weeks after the close of the regular session in June.

The session will be six weeks in length. The large majority of the courses will be on the six weeks' basis. Some courses will be available in three-week units. Courses are arranged in the schedule to permit the maximum flexibility in combinations to meet current educational needs. The summer session bulletin issued in April gives full information on courses and schedule.

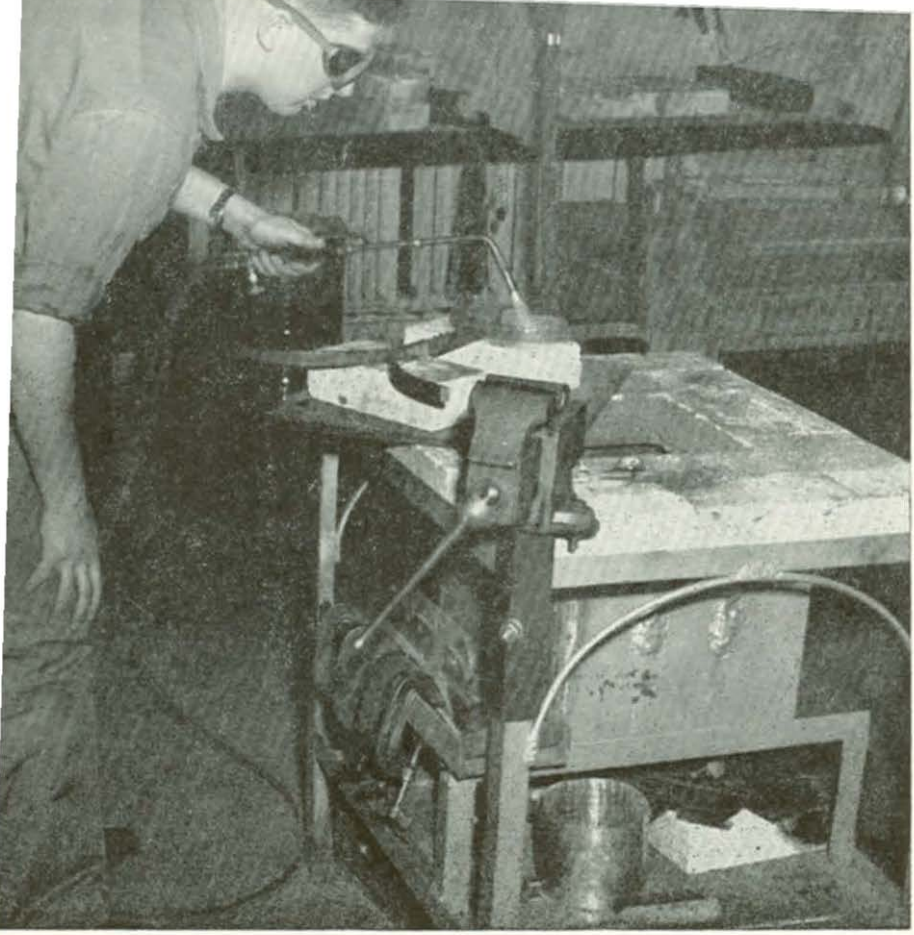
Summer session classes are designed to meet the needs of various groups of people. Former students and graduates have an excellent opportunity for taking advanced work. Both graduate and undergraduate work will be offered. Supervisors and teachers of industrial education or home economics can strengthen their work in techniques or in the field of education. All persons interested in specific studies related to work in industrial or homemaking courses will find much of interest in the summer session schedule. The Wisconsin State Board of Vocational and Adult Education through the use of federal teacher training funds is cooperating with The Stout Institute in the preparation of teachers for schools of vocational and adult education. The summer session schedule carries an excellent range of courses required for vocational classification.

Special lectures and conferences are included in the summer session program. It has been the policy of the college to secure special speakers particularly well qualified to handle the larger social problems of the present time. Special emphasis is given to the relationships and responsibilities which home economics and industrial education teachers have in the solution of these problems.

Credit granted for courses taken during the summer session will apply on course requirements where such courses are in the curriculum leading to the degree. The time assigned to summer session courses is increased in sufficient amount to permit students to carry the courses for the same credit as in the regular session.

Teachers whose work remaining for the degree is in an amount too large to be conveniently completed through summer sessions are advised to use one or two semesters of attendance in addition to summer session attendance. In the preparation of the summer program certain courses are offered every summer while others are alternated. Students planning to attend several summer sessions should consult advisers at the time of registration. Opportunity is offered in various courses to meet the rapid changing requirements in teaching positions.

The April issue of The Stout Institute Bulletin is the annual summer session bulletin. This contains general information on the summer session, descriptions of courses, and the summer session class schedule including both undergraduate and graduate work. It will be sent on request.



COURSES OF STUDY

Industrial Education

The four-year curriculum in the division of Industrial Education at The Stout Institute leads to a degree of Bachelor of Science with a major in Industrial Education or Vocational Education and the special state license.

Supplementary licenses to teach additional subjects are based on the electives selected. The general purpose of this curriculum is to provide a balanced educational development. This balanced development is brought about through closely integrated courses in sequenced progression within the several subject groups in technical work, in English, social science, science, mathematics, education, and physical education. The specific purpose in the curriculum is to prepare the students for the requirements of the industrial education teaching and supervisory positions in elementary schools, junior high schools, senior high schools, vocational schools, junior colleges, and technical institutions. Through controlled choices in the technical and educational sequences, provision is made for licensing or certificating requirements of state departments of education. Through carefully balanced sequenced progression in academic courses, a basic preparation is provided for continued professional study.

The first and second years are general preparation. Students are required to take a range of work indicated in these years in the technical and other sequences. The basic exploratory range of industrial work required in the first year is supplemented by controlled choices in the second year which continue the development of a broad general foundation in this sequence.

For those students who are not journeymen or who have less than four years of apprenticeship and three years of journeyman experience in the trade, the major in industrial education is open. For those who have the trade experience and who are eligible for classification as vocational teachers, either the major in industrial education or the major in vocational trade and industrial education may be selected.

The tabulated material immediately following indicates the curriculum definitions for the major in industrial education. Following this information is the statement indicating the modifications in the industrial education curriculum for those who are eligible for the curriculum with the vocational trade and industrial major.

CURRICULUM IN INDUSTRIAL EDUCATION
FIRST YEAR

			Sem. Hrs.
English	102a-b	English Composition	6
English	106	Speech I	2
Mathematics	209	College Algebra	4
Hygiene	101	Hygiene	1
Education	123	General Psychology	3
Ind. Education	(See List)	Shop, Drawing, Design	16
Physical Education	127	Physical Education	0

The 16 hours of shop work and drawing in the first year consist of eight courses in the following:

IE 107	Hand Woodworking	IE 117	Printing
IE 131	Machine Woodworking	IE 119	Electrical
IE 115	Sheet Metal	IE 118	Freehand Drawing
IE 113	Machine Shop	IE 121	Ele. of Mech. Drawing

The shop work and drawing in the first year is required of all students. Recognition of incidental experiences by the students in the field of work covered by any of the courses in this group is made individually. For those entering with specific journeyman experience in trades, the freshman schedule is modified.

SECOND YEAR

			Sem. Hrs.
Chemistry	115	Inorganic Chemistry	5
Mathematics	213	Trigonometry	3
Social Science	309	Sociology	3
Education	222	Principles of Sec. Education	2
Education	303	Educational Psychology	2
Education	234	Activity Analysis	2
Education	236	Course Construction	2
Education	228	Business Management in Industrial Education	2
Ind. Education	(See List)	Shop, Drawing, Design	10

The 10 semester hours of shop and drawing in the second year will be selected as follows:

Three courses selected from the following in terms of the student's fields of concentration in technical work.

IE 226	General Drawing	IE 363	General Graphic Arts
IE 335	General Metal	IE 209	General Finishing
IE 116	General Woodwork	IE 369	Gen. Industrial Mechanics
IE 253	General Mechanics	IE 242	General Motor Mechanics

Two additional courses from general list in terms of fields of concentration in technical work.

The selection of technical courses in shop work, drawing, and design in the second, third, and fourth years is based upon continuous survey studies. The choices in the second year continue the exploratory range begun in the first year and include instructional experiences in typical general shops. These are selected in terms of the fields of concentration which the individual student plans to develop in his technical work. The selection of technical courses in the third and fourth year are based upon the experiences of the student in the first and second years, a detailed study of the trends in educational requirements as evidenced in the distribution in calls for teachers, and continuous studies of change in modern industry. The implications of the results of these studies are used in teacher training to meet the requirements for general education and for vocational education. Selections of courses are combinations made from the following:

Aircraft Construction	Painting and Decorating
Carpentry	Oxy-acetylene & Electric Welding

Cabinetmaking
Patternmaking
Woodturning
Furniture Upholstery
General Woodworking
Freehand Drawing
Machine Drawing
General Drawing
Mechanical Drawing
General Mechanics
General Industrial Mechanics
Industrial Mechanics
General Motor Mechanics
Auto Mechanics
General Finishing
Sheet Metal
Machine Shop
Architectural Drawing
Aircraft Drawing
Foundry
General Metal
General Graphic Arts
Printing
Photography
Masonry
General Building Construction
House Furnishing
Electrical Work
Radio

Those who wish technical courses in shopwork, drawing, or design for preparation for technical or junior executive positions in industry or positions in industrial training departments will find selections from the technical and education courses particularly applicable.

Those who desire to take special selections of work in English, mathematics, science, social science, or education for the purpose of transferring these credits to other colleges to apply on other curricula will find advantageous combinations of work for as much as two years of attendance.

THIRD YEAR

			Sem. Hrs.
English	346	Expository Writing	3
English	223	Speech II	2
Physics	421	Physics I	5
Social Science	201	Economics	3
Academic Electives			5
Education	205	Methods of Teaching Ind. Arts	2
Education	408b	Student Teaching	2
Education	357	Educational Organization	2
Education Electives			2
Ind. Education (See List)		Shop, Drawing, Design	6

FOURTH YEAR

Social Science	311	Government	3
Additional Science			3
Additional Social Science			4
Academic Electives			5
Education	408c	Student Teaching	2
Education	441	Educational Evaluation	2
Education	401	Guidance	2
Education Electives			2
Ind. Education (See List)		Shop, Drawing, Design	10

Electives

Supplementary licenses to teach subjects in addition to industrial subjects are based on electives selected. In addition to the major in

industrial education, students are required to arrange their selections of electives to complete two academic minors. Fifteen semester hours of work in a given subject matter field constitute a minor.

Education Electives			Sem. Hrs.
Ed.	235	Trade Analysis	2
Ed.	350	Adolescent Psychology	2
Ed.	352	Child Psychology	2
Ed.	447	Psychology of Personality & Mental Hygiene	2
Ed.	449	Psychology of Counseling & Guidance	2
Ed.	360	Audio-Visual Education	2
*Ed.	402	Philosophy of Vocational and Adult Education	2
Ed.	423	Safety Education	2
Ed.	459	Curriculum Procedures I (Graphic Analysis)	2
Ed.	461	Educational Statistics	2
Ed.	472	Coordination	2
Ed.	480	Theory & Organization of the General Shop	2
*Ed.	407	Teaching Trade & Industrial Subjects	2
*Ed.	443	Problems in Teaching Trade and Industrial Subjects	2

(*See Wisconsin State Board of Vocational and Adult Education classification requirements.)

General Electives

English

Students desiring to complete an English minor should select courses from the following group in sufficient amount to complete fifteen semester hours in English, counting English courses included in the required group.

E	306	Journalism	2
E	410	Writing and Selling Feature Articles	2
E	216	Survey of English Literature	2
E	348	Survey of American Literature	2
E	402	Fiction	2
E	404	Poetry	2
E	406	Drama	2
E	444	Play Production	2
E	320	Speech III	2

History and Social Science

Students desiring to complete a social science minor should select courses from the following group in sufficient amount to complete fifteen semester hours in social science, counting social science courses included in the required groups.

SS	301	Economic History of the United States	3
SS	326	Problems of the Family	2
SS	407	History of the Americas	4
SS	409	Recent History of the U. S.	2
SS	410	Modern World	4
SS	411	Social Problems	2
SS	414	Labor Problems	3
SS	417	American Politics	2

Science

Students desiring to complete a science minor should select from the following group in sufficient amount to complete fifteen semester hours in science, counting science courses included in the required group.

Biol.	122	General Biology	3
Biol.	214	Physiology and Anatomy	5
Bact.	206	General Bacteriology	3
Biol.	316	Zoology	3
Biol.	362	Advanced Physiology	3
Bact.	422	Applications of Bacteriology	3
Biol.	432	Heredity and Eugenics	2 or 3
Biol.	442	Community Hygiene	2 or 3
Chem.	208	Organic Chemistry	4
Chem.	322	Bio Chemistry	3
Chem.	445	Chemistry of Materials	3
Phys.	423	Physics II	3
Phys.	425	Physics III	3
Phys.	427	Physics IV (Electronics)	3

Mathematics

Students desiring to complete a mathematics minor should select courses from the following group in sufficient amount to complete fifteen semester hours in mathematics, counting mathematics courses included in the required groups.

Math.	216	College Geometry	2
Math.	220	Spherical Trigonometry	2
Math.	314	Analytic Geometry	2
Math.	315	Calculus	4

Music

A maximum of two semester hours of music may be included in the academic electives to count toward graduation requirements.

Music	150	Solfeggio	1
Music	151	Harmony 1a	1
Music	152	Harmony 1b	1
Music	153	Introduction To and Appreciation of Music	1
Music	160	Theory	1
Music	162	Conducting	1
Music	164	Men's Glee Club	1
Music	166	The College Band	1
Music	167	The College Orchestra	1

Coaching

Techniques of Coaching Football	1½
Techniques of Coaching Basketball	1½

COOPERATIVE WORK

All students in the division of Industrial Education select certain concentrations of work in their technical sequence in shop work, drawing, and design. From time to time opportunities are available for advanced students to spend some time in certain selected industrial estab-

lishments securing practical production experience. Regular production experience is available on the campus in certain areas of work. Constant effort is maintained to keep such opportunities available in establishments representing the various content areas included in the technical sequence. The purpose of such work is to give the students modern industrial experience to extend the training experiences secured on the campus. For students who come to The Stout Institute after having already attained sufficient journeyman experience in a trade, the opportunities for the vocational major are available.

VOCATIONAL TRADE AND INDUSTRIAL EDUCATION MAJOR

The 1939 Wisconsin legislature enacted legislation which makes possible the offering of curricula leading to the degree of Bachelor of Science and the degree of Master of Science with a major in Vocational Education. This major on both the undergraduate and graduate level is in addition to the majors in Home Economics and Industrial Education already available on the undergraduate and graduate levels.

In the curriculum for the degree of Bachelor of Science with a major in Vocational Education those applying for the major must be eligible for vocational teaching classification upon graduation. Ordinarily this classification is based upon certain definitions of practical experience. Candidates who are not eligible for vocational classification upon graduation will not be eligible for the curriculum leading to the vocational major.

(Note: For curriculum requirements for the vocational major on the graduate level, see material elsewhere in this bulletin on Graduate Program.)

The proportioning and distribution of academic, education, and technical courses for the undergraduate vocational major will be similar to the proportioning in the undergraduate programs in the Industrial Education and Home Economics divisions. The vocational education classification courses will be recommended. Where necessary these courses will be used in substitution for courses now in the education sequence.

The courses referred to as classification courses are as follows:

For All

Philosophy of Vocational and Adult Education	2
Vocational Guidance	2
Educational Psychology	2
Elementary Economics	2
Socio-economic Electives	4
Teaching Trade and Industrial Subjects	2
Problems in Teaching Trade and Industrial Subjects	2

(For detailed information, see Teacher Training Series Bulletins, Wisconsin State Board of Vocational and Adult Education.)

Trade experience credit examinations will be arranged to permit candidates for the undergraduate trade and industrial vocational major to earn through examinations up to a maximum of twenty-four semester hours of credit in the total required for the degree of Bachelor of Science. This credit will be available in six-semester hour amounts at certain stated periods in the student's progress through the other credits

earned through residence work. In the schedule listed below the plan and the rate at which the twenty-four semester hours of trade examination credit become available is indicated.

Trade and Industrial Education Vocational Major

128 Semester Hours

When 32 sem. hrs. residence completed.	6 sem. hrs. credit on occupational experience examination released
When 32 sem. hrs. (Additional)	6 sem. hrs. (Additional)
When 32 sem. hrs. (Additional)	6 sem. hrs. (Additional)
When 8 sem. hrs. (Additional)	6 sem. hrs. (Additional)
104 sem. hrs.	24 sem. hrs.

The credit and grade point requirements for the residence work will be the same as those for the industrial major. For graduation it will be necessary for the students to have as many grade points as semester hours in residence credit.

In this program of examinations based upon occupational experience, use will be made of advisory committees to assist The Stout Institute in the formulation and conducting of examinations. Agencies to be represented in these advisory examining committees will include the State Board of Vocational and Adult Education, employers in the occupation in which the candidate is being examined, employees in the occupation, and The Stout Institute. The examinations will be conducted at The Stout Institute and will include oral, written, and performance sections.

The occupational experience examination is an optional channel for use by undergraduate vocational major students.

Alternatives are as follows:

Using Vocational Major Examination

Candidates who desire to use the channel of the vocational major examination must have completed apprenticeship and three years of successful journeyman occupational experience. In some instances these requirements will not have been completed at the time the student starts his attendance at The Stout Institute. In such cases the student must have completed these requirements at the time he has completed his residence work for the degree.

In conducting these examinations, as a general rule, the major portion of the written and performance parts of the examination will be completed before the committee meets at The Stout Institute. At the time of the committee meeting the oral examinations will be conducted and the checking and evaluating of the results of the written and performance parts of the examination will be completed. This plan will, however, be subject to modifications when necessary. Candidates will be required to meet a reasonable fee charge for the examination, such fee to be used in meeting the expense in connection with the examination.

Vocational Major Program Without Major Examination

Students who have a major concentration in a technical area in the regular industrial education curriculum may present this as an equiva-

lent of apprenticeship. In addition to the completion of the four year curriculum with the above concentration, a minimum of one and one-half years of occupational experience in the same technical area on the adult or journeyman level is required initially with an additional one and one-half years to be gained subsequently.

The work outlined for the curriculum for the vocational major is closely articulated with classification requirements of the Wisconsin State Board of Vocational and Adult Education.

WISCONSIN STATE BOARD OF VOCATIONAL AND ADULT EDUCATION CLASSIFICATION REQUIREMENTS

Under section 41.15 (6) of the Wisconsin Statutes the State Board of Vocational and Adult Education has set up certain standards of practical occupational experience, teaching experience in schools of vocational and adult education, general educational training, and specific professional preparation for teachers in the Wisconsin schools of vocational and adult education and is classifying such teachers on the basis of these standards.

Teachers of Trade and Industrial Subjects

Junior Classification

Junior Classification is granted to and held by:

A. All teachers of trade and industrial subjects in the Wisconsin schools of vocational and adult education employed—

Outside of Milwaukee prior to January 1, 1926.

In Milwaukee prior to March 17, 1941, who:

1. Are not yet qualified to hold a higher classification.
2. If not already with a record of practical experience in the vocation taught for at least three years beyond the completion of apprenticeship, or the equivalent experience, spend one summer, or the equivalent, during each three-year period in practical work in the trade or occupation indicated until such record shall total three full years.
3. Have agreed to and actually do spend one summer, or the equivalent, during each three year period in professional improvement along the lines laid down for securing Senior A Classification. At least six credits must be earned over each three-year period. The following courses must be taken first:
   Philosophy of Vocational and Adult Education ..... 2 credits
   Teaching Trade and Industrial Subjects ..... 2 credits
   Note: Three year periods mentioned above are those ending as of August 31, 1950—1953—1956—etc.

B. All teachers of trade and industrial subjects in the Wisconsin schools of vocational and adult education employed—

Outside of Milwaukee prior to January 1, 1926—

In Milwaukee on or after March 17, 1941, who:

1. Are not yet qualified to hold a higher classification.
2. Have had practical experience in the vocation taught for at least three years beyond the completion of apprenticeship, or the equivalent experience. Or have had practical experience, in the vocation taught for at least one and a half years beyond the completion

of apprenticeship, or the equivalent experience, and have agreed to and actually do spend one summer, or the equivalent, during each two-year period in practical work in the trade or occupation indicated until such record shall total three full years.

3. Have agreed to and actually do spend one summer, or the equivalent, during each two-year period in professional improvement along the lines laid down for securing Senior A Classification. At least six credits must be earned over each two-year period. The following courses must be taken first:

   Philosophy of Vocational and Adult Education ..... 2 credits
   Teaching Trade and Industrial Subjects ..... 2 credits

   Note: Two-year periods mentioned above are those ending with the second August 31st after the teacher enters upon his work in the school of vocational and adult education and all subsequent two-year periods.

Senior B Classification

Senior B Classification is granted to all teachers of trade and industrial subjects in the Wisconsin schools of vocational and adult education employed—

Outside of Milwaukee prior to January 1, 1926.
In Milwaukee prior to March 17, 1941, who:

1. Are not yet qualified to hold Senior A Classification.
2. Have completed five years of successful teaching of the trade and industrial subject indicated in the Wisconsin schools of vocational and adult education.
3. Have completed one summer, or the equivalent in professional improvement. At least six credits must be earned, including the following courses:

   Philosophy of Vocational and Adult Education ..... 2 credits
   Teaching Trade and Industrial Subjects ..... 2 credits

Senior B Classification will be extended as long as the possessor:

1. Teaches the trade and industrial subject indicated successfully in the Wisconsin schools of vocational and adult education.
2. If not already with a record of practical experience in the vocation taught for at least three years beyond the completion of apprenticeship, or the equivalent experience, spends one summer, or the equivalent, during each three-year period in practical work in the trade or occupation indicated until such record shall total three full years.
3. Have agreed to and actually do spend one summer, or the equivalent, during each three-year period in professional improvement along the lines laid down for securing Senior A Classification. At least six credits must be earned over each three-year period. The following courses must be taken first:
   Philosophy of Vocational and Adult Education ..... 2 credits
   Teaching Trade and Industrial Subjects ..... 2 credits
   Note: Three-year periods mentioned above are those ending as of August 31, 1950—1953—1956—etc.

Senior A Classification

Senior A Classification is granted to and held by all teachers of trade and industrial subjects who meet the following requirements:

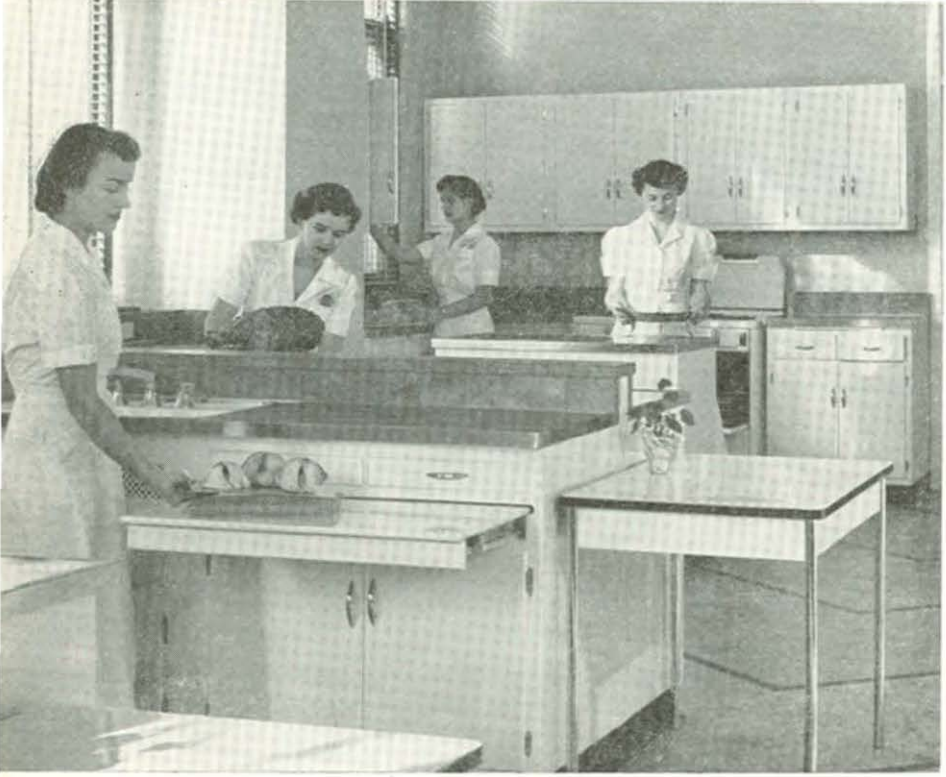
1. Practical experience in the vocation taught for at least three years beyond the completion of apprenticeship, or the equivalent experience.
2. Successful teaching experience of the trade and industrial subject indicated for not less than three full years in schools of vocational and adult education; one of these three years must be in Wisconsin.
3. Completion of two years of college work in an approved teacher training institution, or the equivalent training.
   Note: Time spent by a person without practical experience in a trade school or technical school learning elementary processes, if applied on the apprenticeship period mentioned above, cannot be counted here. This two years of school training is to be in addition to the learning of the elementary trade or industrial processes.
4. Completion of the following courses, which may be included in the two years of college training required (under 3) above, or the equivalent specific training.
   (1) Philosophy of Vocational and Adult Education ..... 2 credits
   (2) Teaching Trade and Industrial Subjects ..... 2 credits
   (3) Educational Psychology ..... 2 credits
   (4) Vocational Guidance ..... 2 credits
   * (5) Problems in Teaching Trade and Ind. Subjects ..... 2 credits
   (6) Elementary Economics ..... 4 credits
   (7) Socio-economic Electives ..... 4 credits

   * This course cannot be taken for classification credit until the teacher has a record of three years' experience in schools of vocational and adult education.

   Note: Four credits of graduate work done by a candidate for a higher degree is accepted in lieu of the six credits total required throughout these standards.

Unclassified

All teachers of trade and industrial subjects who do not have the qualifications for any of the ranks of classification as herein set up shall be designated as Unclassified.



Home Economics

The field of Home Economics is concerned with problems of home and family life, and its studies are based upon an understanding of the biological and physical sciences and the humanities. The offerings in the Division of Home Economics are planned to meet student needs in family and community living and to offer a worthwhile training in the many professional fields open to home economists. Graduates of this college are prepared to fill positions in the teaching field, hospital dietetics, institution management, commercial demonstration work, in Agriculture Extension Service, and a wide range of home economics positions in business.

The curriculum in this division meets the requirements for the degree of Bachelor of Science in Home Economics. It also permits the meeting of requirements for teachers' licenses and the certification by the American Dietetics Association for dietetians. Students may complete requirements for graduation through choice in Home Economics Education, Dietetics, Institution Management, or a General Home Economics sequence of courses. In the latter group special selections may be made in Food, Clothing, or Child Development.

CURRICULUM IN HOME ECONOMICS

First Year

Curriculum in Home Economics for all Majors

	Sem. Hrs.
English 102a-b—English Composition	6
English 106—Speech I	2
Biology 214—Physiology and Anatomy	5
Education 123—General Psychology	3
Home Economics 116—Personal Development	1
Home Economics 102—Clothing	3
Home Economics 114—Food Preparation	4
Art 106—Fundamentals of Design	3
Art 220—Clothing Selection	2
Physical Education 128a-b—Physical Education	0
Electives	2

Second Year

English 216—Surv. of Eng. Literature or Surv. of Amer. Lit.	2
Chemistry 115—Inorganic	5
Chemistry 208—Organic	4
Social Science 309—Sociology	3
Home Economics 212—Nutrition	3
Home Economics 230—Food Preparation	3
Home Economics 315—Textiles	3
Home Economics 218—Clothing Construction	3
Art 334—House Furnishing	3
Education 222—Principles of Secondary Education	2
Physical Education 228a-b—Physical Education	0

Note: Dietetic and Institution Management majors will schedule Bacteriology 206 and need not schedule Art 334, H.E. 218, and Ed. 222, unless desired.

Home Economics Education

Third Year

Social Science 201—Economics	3
Social Science 326—Problems of Family	3
Home Economics 224—Growth and Development of Child	2
Education 303—Educational Psychology	2
English 346—Expository Writing	3
Education 320—Methods of Teaching Home Economics	3
Home Economics 317—Consumer Information	3
Home Economics 308—Meal Management	3
Education 402—Philosophy of Vocational Education	2
Education 401—Vocational Education Guidance	2
Electives	3-5

Fourth Year

Biology 442—Community Hygiene	2-3
Choice of:	
Social Science 410—Modern World	4
Social Science 407—History of the Americas	4
Social Science 311—Government	3
Home Economics 403—Home Management	3
Home Economics 410—Admin. of Home Economics Education	3
Education 408—Student Teaching	6
Home Economics 424—Principles and Pract. of Child Guid.	2
Education 441—Educational Evaluation	2
Education 436—Course Development	2
Education 413—Teaching Voc. and Adult Homemaking	2
Electives	5-6

Dietetics Major

Third Year

Home Economics 224—Growth and Development of Child	2
Chemistry 322—Biochemistry	3
Biology 362—Advanced Physiology	3
Social Science 201—Economics	3
Education 303—Educational Psychology	2
Home Economics 308—Meal Management	3
Home Economics 320—Methods of Teaching Home Economics	3
Home Economics 328—Institution Administration	3
Social Science 326—Problems of the Family	3
Electives	6

Fourth Year

Home Economics 418—Diet in Disease	3
Home Economics 403—Home Management	3
Home Economics 438—Experimental Foods	3
Home Economics 452—Institution Food Preparation	3
Home Economics 310—Nutrition and Dietetics	3
Electives	16

Note: Students interested in administrative work should elect as many courses as possible from the Institution Management curriculum.

Institution Management Major

Third Year

Social Science 201—Economics	3
Social Science 326—Problems of the Family	3
Home Economics 224—Growth and Development of Child	2
Education 303—Educational Psychology	2
Home Economics 308—Meal Management	3
Home Economics 317—Consumer Information	3
Education 320—Methods of Teaching Home Economics	3
Home Economics 328—Institution Administration	3
Home Economics 403—Home Management	3
Electives	6

Fourth Year

Home Economics 463—Institution Management Problems	2-3
Home Economics 452—Institution Food Preparation	3
Home Economics 300—Applied Institution Management	3
Biology 442—Community Hygiene	2-3
Home Economics 438—Experimental Foods	3
Electives	17

Note: Students interested in administrative internships should elect Chemistry 322, H.E. 310 and other courses from the Dietetics curriculum.

General Home Economics

Third Year

English 346—Expository Writing		3
Social Science 201—Economics		3
Home Economics 308—Meal Management		3
Home Economics 317—Consumer Information		3
Art 206—Art Appreciation		2
Social Science 326—Problems of the Family		3
Choice:		
Food	Home Economics 438—Experimental Foods	3
	Home Economics 400—Food Demonstrations	2
or		
Clothing	Home Economics 336—Clothing Problems	2
	Home Economics 320—Adv. Clothing Const.	2
or		
Family	Education 352—Child Psychology	2
Life	Home Economics 333—Household Equipment	2
	Home Economics 318—Family Health	2

Electives: (6-8)

Fourth Year

Home Economics 424—Prin. and Pract. of Child Guidance	2
Home Economics 403—Home Management	3
Social Science 410—Modern World	4
or	
Social Science 407—History of the Americas	4
or	
Social Science 311—Government	3

Biology 442—Community Hygiene 2-3

Choice:

Food	Home Economics 300—Applied Institution Mgt.	3
or		
Clothing	Home Economics 412—Applied Dress Design	2
or		
Family Life	Biology 432—Heredity and Eugenics	2-3

Electives **15**

ELECTIVES

In addition to the requirements for a major in Home Economics, students must arrange their choice of electives to complete two academic minors. Fifteen semester hours in courses of a particular subject matter field constitutes a minor.

Students may also choose electives in subject matter fields of their special interests and needs to complete the total number of hours required.

Education

Education 350—Adolescent Psychology 2
Education 352—Child Psychology 2
Education 360—Audio-Visual Education 2
Education 401—Vocational and Educational Guidance 2
Education 402—Philosophy of Voc. and Adult Education 2
Education 413—Teaching Vocational and Adult Homemaking .. 2
Education 416—Problems in Teaching Vocational and Adult Homemaking 2
Education 436—Course Development 2
Education 441—Education Evaluation 2
Education 449—Psychology of Counseling and Guidance 2
Education 461—Educational Statistics 2

English and Speech

English 216—Survey of English Literature 2
English 348—Survey of American Literature 2
English 402—Fiction 2
English 404—Poetry 2
English 406—Drama 2
Speech 223—Group Speech Activities 2
Speech 320—Advanced Speech 2
Speech 444—Play Production 2

Home Economics

Art 206—Art Appreciation 2
Art 323—Problems in House Furnishing 2
Art 332—Advanced Design 2
Art 400—Crafts 2
Art 410—Pottery 2
Art 430—Art History 2
Art 436—Costume Design 2
Art 446—Sketch 1
Art 460—Creative Arts 2
Home Economics 244—Weaving 2

Home Economics 300—Applied Institution Mgt. 3
Home Economics 310—Nutrition and Dietetics 3
Home Economics 316—Clothing Economics 2
Home Economics 318—Family Health and Home Nursing 2
Home Economics 320—Advanced Clothing Construction 2
Home Economics 328—Institution Administration 3
Home Economics 333—Household Equipment 2
Home Economics 336—Clothing Problems 2
Home Economics 400—Food Demonstration 2
Home Economics 412—Applied Dress Design 2
Home Economics 414—Children's Clothing 2
Home Economics 418—Diet in Disease 3
Home Economics 423—Planning and Equipping Home Economics Laboratories 2
Home Economics 438—Experimental Food 3
Home Economics 443—School Food Service 2-3
Home Economics 452—Institution Food Preparation 3
Home Economics 463—Institution Management Prob. 2-3
Home Economics 471—History of Costume 2
Home Economics 472—Advanced Textiles 2

Music

(Maximum of two semester hours may be included in academic electives to count toward graduation.)

Music 150—Solfeggio 1
Music 151—Harmony Ia 1
Music 152—Harmony Ib 1
Music 153—Introduction to and Appreciation of Music 1
Music 160—Theory 1
Music 162—Conducting 1
Music 165—Women's Glee Club 1
Music 166—Band 1
Music 167—Orchestra 1

Science

Science 206—General Bacteriology 3
Science 316—Zoology 3
Science 362—Advanced Physiology 3
Science 432—Heredity and Eugenics 2-3
Science 442—Community Hygiene 2-3
Science 322—Biochemistry 3
Science 421—Physics I 5
Science 423—Physics II 3

Social Studies

Social Science 301—Economic History of the U. S. 3
Social Science 311—Government 3
Social Science 407—History of the Americas 4
Social Science 409—Recent U. S. History 2
Social Science 410—Modern World 4
Social Science 411—Social Problems 2
Social Science 414—Labor Problems 3
Social Science 417—American Politics 2

Vocational Homemaking Education Major

Women students interested in the vocational education major must be eligible for vocational teaching classification upon graduation.

The distribution of the courses required for a major in this division will be very similar to that in the curriculum of the home economics division. The academic and education courses will be distributed as they are in that curriculum. The vocational courses required will be:

Philosophy of Vocational and Adult Education
Teaching Vocational and Adult Homemaking
Educational Psychology
Vocational Guidance
Problems in Teaching Vocational and Adult Homemaking

Technical courses will be taken from the list required in home economics, such requirements, however, to be modified to fit the particular needs of the individual student.

Credit examinations in technical fields in which the candidate has had teaching or trade experience will be allowed up to a maximum of 24 semester hours. Such credit will be released in units of six-semester hours at the completion of each 31 semester hours of resident class work. The method for conducting such examinations will be similar to that set up for the men majoring in the vocational trade and industrial courses. (See Vocational Trade and Industrial Major)

The total amount of credit required for this major will be 124 semester hours, with grade point requirements equalling the semester hours of credit.

WISCONSIN STATE BOARD OF VOCATIONAL AND ADULT EDUCATION CLASSIFICATION REQUIREMENTS

Under section 41.15 (6) of the Wisconsin Statutes the State Board of Vocational and Adult Education has set up certain standards of practical occupational experience, teaching experience in schools of vocational and adult education, general educational training, and specific professional preparation for teachers in the Wisconsin schools of vocational and adult education, and is classifying such teachers on the basis of these standards.

Teachers of Homemaking

Junior Classification

Junior Classification is granted to and held by:

A. All teachers of homemaking in the Wisconsin schools of vocational and adult education employed—

Outside of Milwaukee prior to January 1, 1926
In Milwaukee prior to March 17, 1941, who:

1. Are not yet qualified to hold a higher classification.
2. If not already with a record of practical experience in homemaking involving some degree of responsibility for at least twelve months, or the equivalent experience, spend one summer, or the equivalent, during each three-year period in practical homemaking until such record shall total twelve months.

3. Have agreed to and actually do spend one summer, or the equivalent, during each three-year period in professional improvement along the lines laid down for securing Senior A Classification. At least six credits must be earned over each three-year period. The following courses must be taken first:
   Philosophy of Vocational and Adult Education ..... 2 credits
   Teaching Vocational and Adult Homemaking ..... 2 credits
   Note: Three-year periods mentioned above are those ending as of August 31, 1950—1953—1956—etc.

B. All teachers of homemaking in the Wisconsin schools of vocational and adult education employed—
   Outside of Milwaukee on or after January 1, 1926
   In Milwaukee on or after March 17, 1941, who:

1. Are not yet qualified to hold a higher classification.
2. Have had practical experience in homemaking involving some responsibility for at least twelve months, or the equivalent experience. Or have had such practical homemaking experience for at least six months, or the equivalent experience, and have agreed to and actually do spend one summer, or the equivalent, during each two-year period in such practical homemaking until such record shall total twelve full months.
3. Have completed two years of the home economics course in an approved teacher training institution of college rank, or the equivalent training.
4. Have agreed to and actually do spend one summer, or the equivalent, during each two-year period in professional improvement along the lines laid down for securing Senior A Classification. At least six credits must be earned over each two-year period. The following courses must be taken first:
   Philosophy of Vocational and Adult Education ..... 2 credits
   Teaching Vocational and Adult Homemaking ..... 2 credits
   Note: Two-year periods mentioned above are those ending with the second August 31st after the teacher enters upon her work in the school of vocational and adult education and all subsequent two-year periods.

Senior B Classification

Senior B Classification is granted to all teachers of homemaking in the Wisconsin schools of vocational and adult education employed—
   Outside of Milwaukee prior to January 1, 1926
   In Milwaukee prior to March 17, 1941, who:

1. Are not qualified to hold Senior A Classification.
2. Have completed five years of successful teaching of homemaking in the Wisconsin schools of vocational and adult education.
3. Have completed one summer, or the equivalent, in professional improvement. At least six credits must be earned including the following courses:
   Philosophy of Vocational and Adult Education ..... 2 credits
   Teaching Vocational and Adult Homemaking ..... 2 credits

Senior B Classification will be extended as long as the possessor:

1. Teaches homemaking successfully in the Wisconsin schools of vocational and adult education.
2. If not already with a record of practical experience in homemaking involving some degree of responsibility for at least twelve months, or the equivalent experience, spends one summer, or the equivalent, during each three-year period in practical homemaking until such record shall total twelve full months.
3. Has agreed to and actually does spend one summer, or the equivalent, during each three-year period in professional improvement along the lines laid down for securing Senior A Classification. At least six credits must be earned over each three-year period. The following courses must be taken first:
   Philosophy of Vocational and Adult Homemaking .... 2 credits
   Teaching Vocational and Adult Homemaking ..... 2 credits
   Note: Three-year periods mentioned above are those ending as of August 31, 1950—1953—1956—etc.

Senior A Classification

Senior A Classification is granted to and held by all teachers of homemaking who meet the following requirements:

1. Practical experience in homemaking involving some degree of responsibility for at least twelve months, or the equivalent experience.
   Note: Practical experience in homemaking involving some degree of responsibility is considered to be:
   a. Experiences with entire responsibility for all homemaking activities such as would be the case were the housewife to be away or ill or the mother to die, leaving full responsibility to be assumed by the candidate.
   b. Experience as an employee in the home, responsible for certain homemaking activities such as would be the case where the candidate works with and assists the housewife but usually has delegated or assumes responsibilities for definite activities.
2. Occupational experience in fields other than teaching or homemaking for at least three months, or the equivalent experience.
3. Successful teaching experience in homemaking for not less than three full years in schools of vocational and adult education; one of these three years must be in Wisconsin.
4. Completion of a four-year college course with a home economics major in an approved teacher training institution, or the equivalent training.
5. Completion of the following courses, which may be included in the four years of college training required (under 4) above, or the equivalent specific training:
   (1) Philosophy of Vocational and Adult Education ..... 2 credits
   (2) Teaching Vocational and Adult Homemaking ..... 2 credits
   (3) Educational Psychology ..... 2 credits
   (4) Vocational Guidance ..... 2 credits

* (5) Problems in Teaching Vocational and Adult Homemaking ..... 2 credits
(6) Elementary Economics ..... 4 credits
(7) Socio-economic Electives ..... 4 credits

* This course cannot be taken for classification credit until the teacher has a record of three years' experience in schools of vocational and adult education.

Note: Four credits of graduate work done by a candidate for a higher degree is accepted in lieu of the six credits total required throughout these standards.

Unclassified

All teachers of vocational homemaking who do not have the qualifications for any of the ranks of classification as herein set up shall be designated as Unclassified.

DESCRIPTION OF COURSES

Psychology, Education, Liberal Arts

PSYCHOLOGY

Education 123 General Psychology

Scientific vs. unscientific approaches in understanding behavior. Includes efficient study methods, individual differences, motivation, emotions, personality development, thinking, and psychological problems of college, community, and vocational life.

Sem. I, II. Credit: 3

Salyer

Education 222 Principles of Secondary Education

Prerequisite: Sophomore Standing.

Survey of secondary education, its evolution, present status, and trends. Considers needs of our democratic society, a sound philosophy, organizational problems, curriculum development, and the responsibilities of the individual teacher. Special emphasis given to the practical arts.

Sem I, II. Credit: 2

Salyer

Education 303 Educational Psychology

Prerequisite: Education 123.

Study and application of the principles of educational psychology. Covers child and adolescent development; emphasizes learning and its guidance, the individual student, and the implications of interests and attitudes.

Sem. I, II. Credit: 2

Oetting

Education 350 Adolescent Psychology

Prerequisite: Education 123.

Comprehensive study of adolescent years embracing the physical, emotional, social, moral, and intellectual development of secondary school youth.

Sem. II Credit: 2

Oetting

Education 352 Child Psychology

Prerequisite: Education 123.

Interpretation and control of the psychological development of children. Emphasis placed on age groups spanning the nursery school and the pre-pubescent child. Includes methods for scientific measurement and prediction of child-behavior.

Sem. I Credit: 2

Salyer

Education 449 Psychology of Counseling and Guidance

Prerequisite: Psychology 123 or equivalent.

Educational and personal counseling. Involves predicting and controlling behavior of self and others, precise methods of trait measurement, and modern procedures for capitalizing upon potentialities. Includes supervised practice in counseling.

SS Credit: 2

Oetting

Education 513 Personality and Mental Health
Prerequisite: Graduate Standing.
Covers the nature of personality and of the conditions which make for its wholesome development and integration. Personality inventories and scales used for self-analysis.
Sem. I, II. Credit: 2
Oetting

Education 555 Psychology of Learning
Prerequisite: Graduate Standing.
Study of the nature and conditions of learning evidenced by laboratory research and supplemented by classroom observation. Findings applied to industrial, vocational, and home economics education.
Sem. I, II. Credit: 2
Oetting

EDUCATION

Education 360 Audio-Visual Education
Prerequisite: Junior Standing in Education.
Methods of using audio-visual aids effectively in teaching. Experience in operating projection equipment, construction of training aids, initiating and operating an audio-visual program. Practice in planning and presenting a lesson.
Sem. I, II, and SS. Credit: 2
Barnard

Education 401 Guidance
Prerequisite: Senior or graduate standing.
Overview course to develop a sympathetic understanding of a comprehensive program of personnel services. A study of the needs, problems, procedures, and services involved.
Sem. I, II. Credit: 2
Brown

Education 402 Philosophy of Vocational and Adult Education
Philosophy, organization and administration of vocational and adult education. History and development of public vocational and adult education in the nation with special attention given to the Wisconsin program; federal and state laws affecting vocational education; coordination.
Sem. I, II. Credit: 2
Elliott

Education 423 Safety Education
Prerequisite: Junior or Senior Standing.
Highway safety, home safety, industrial safety, farm safety, school safety, and recreational safety. Promotion of a program, content, methods, and materials of instruction.
Sem. I, II. Credit: 2
Kranzusch
Note: Paralleling Education 423 an optional unit is offered for a limited number of students in Driver Education and Training. It is available through a cooperative agreement with the Wisconsin Division of the American Automobile Association. Requirements of the AAA Driver

Training Certificate are met and the certificate is awarded to those who successfully meet the requirements.

From time to time, the American Automobile Association conducts one week intensive driver training programs which lead to a certificate.

Ed. 439 Production of Audio-Visual Materials

Prerequisites: Elementary Photography, I.E. 205, and Audio-Visual Education, Ed. 360, or permission of the instructor.

Production of motion pictures, filmstrips, standard and miniature slides, mock-ups, models, and graphic materials. Selection and organization of subject matter, preparation of scripts, and technical problems of production.

Barnard Credit: 2

Education 441 Education Evaluation

Prerequisite: Education 222 or Education 320.

Study of techniques for writing examinations and performance tests. Characteristics and limitations of different types of test questions. Interpretation of test scores by means of statistical procedures.

Sem. I, II. Credit: 2

Jarvis

Education 459 Curriculum Procedures I (Graphic Analysis)

Prerequisite: Graduate or advanced undergraduate standing.

Graphic analysis forms for use in curriculum revision and expansion in general and vocational education. Organization, content, travel or flow analysis, and index layouts applied in current trades, occupations, and subject matter areas.

SS Credit: 2

Bowman

Education 470 Conference Leading

Prerequisite: Methods of Teaching Industrial Subjects or equivalent.

Study and practice of the principles and techniques of conference leading as an instructional device in vocational education.

SS. Credit: 2

Staff

Education 472 Coordination

Prerequisite: Graduate or advanced standing.

Principles of coordination in vocational education in apprenticeship training, distributive education, trades and industries, and diversified occupations. Work-experience program in general education.

Sem. I, II, and SS. Credit: 2

S. Anderson

Education 490 Workshop in Tests and Measurements in Counseling

Prerequisite: Senior undergraduate or graduate standing, and teaching experience.

Selection, use, and interpretation of tests for teachers and counselors. Types of tests such as interest, achievement, aptitude, and personal inventories are studied and sample applications made.

SS Credit: 2

Staff

Education 492 Workshop in Administration of Vocational and Adult Education

Prerequisites: Senior undergraduate or graduate standing, and teaching experience.

For administrators and potential administrators. Formulation and execution of policies; preparation, presentation and administration of budgets, distribution of state and federal aids, selection and assignment of teachers, supervisors, and coordinators; planning agendas and writing reports of meetings of Boards, Advisory Committees, and staff.

SS Credit: 2

Staff

Education 500 Philosophy of Modern Education

Prerequisite: Graduate Standing.

Study of the main schools of educational philosophy and of their influence in contemporary education thought and practice. Points of agreement and of conflict. The comparative approach used.

Price Credit: 2

Education 501 Research Procedures

Prerequisite: Graduate Standing.

Basic course in educational research. Selection of problem, survey of the literature, types of educational research, planning the study, organization and interpretation of data, and preparation of the research report.

Sem. I, II, and SS. Credit: 2

S. Anderson

Education 502 Principles of Supervision

Prerequisite: Graduate Standing.

Basic principles, types, functions, organization, and plan of supervision. Interpretation and application of creative supervision plans. Individual and class projects concerned with applied methods of supervision in selected educational areas.

Sem. I, II. Credit: 2

Wigen

Industrial Education 506 Problems of Supervision
Home Economics 506 Problems of Supervision

Prerequisite: Education 502.

Interpretation and application of basic principles of supervision. Individual project: selection, analysis, interpretation, and application of plans for a selected supervisory activity. Application of scientific methods for solving supervisory problems emphasized.

Staff Credit: 2

Industrial Education 510 Problems in Industrial Education
Home Economics 510 Problems in Home Economics Education

Prerequisite: Education 501.

Applied research course—Interpretation and application of research procedures, use of scientific methods for thesis problem, and orientation of student in terms of selected thesis.

Sem. I, II. Credit: 2

Wigen

Education 524 Social Maladjustments
Prerequisite: Graduate Standing.

Study of non-adjustive tendencies of social groups, their social and educational implications. Techniques of readjustment.
Sem. II. Credit: 2
Parmer

Industrial Education 526 Administration
Home Economics 526 Administration
Prerequisite: Graduate Standing.

Philosophy and principles underlying organization and operation of public education on the local, state, and national levels in the United States. Examination of prevailing practices and current problems of school management.
Sem. II, and SS. Credit: 2
S. Anderson

Education 531 Problems in Guidance
Prerequisites: Education 401, Graduate Standing.

Identification and analysis of field problems in personnel services. Selection of materials, development of methods, and preparation of instruments in term report on problem of the student's choice.
Sem. I, II. Credit: 2
Brown

Industrial Education 533 Survey Procedures
Prerequisite: Graduate Standing.

Techniques and methods of conducting community occupational surveys. Analysis of published community occupational survey reports. Purpose, content organization, personnel budget, forms, promotion, and evaluation considered.
Sem. I, II, and SS. Credit: 2
S. Anderson

Industrial Education 537 Curriculum Procedures III (Course Development)
Prerequisite: Education 568 or permission of the instructor.

Principles of course development are reviewed. Basic divisions of course development covered in a class project.
Sem. I, II, and SS. Credit: 2
S. Anderson

Industrial Education 560 Problems in Audio-Visual Education
Prerequisites: Graduate Standing, Education 360.

Each student selects a problem on the basis of needs, interests, and previous experience. Project in written form.
Sem. I, II, and SS. Credit: 2
Barnard

Education 561 Educational Statistics
Prerequisite: Senior Standing.

Methods of collecting, recording, evaluating, and interpreting educational data.
Sem. I, II. Credit: 2
Jarvis, Rich

Education 568 Curriculum Procedures II (Trade and Job Analysis)
Prerequisite: Graduate standing. Not available to persons who have had Education 468 or Education 234.
Study of systems of analysis of occupations for instructional purposes and for personnel work. Jobs, operations, information topics, blocking, custom trades, service trades, checking levels, progression factors defined. Project in development of complete analysis of an occupation for instructional use.
Sem. II. Credit: 2
Fryklund

Education 570 Thesis Plan (A)
Prerequisites: Education 501, and I.E. 510, or H.E. 510.
Independent research on thesis under direction of investigation adviser. Selection of problem, development of outline, review of literature, compilation of bibliography, plan of method of attack, conduct of research, interpretation of findings, and preparation of the final paper according to thesis standards. Student may enroll for 2, 4, or 6 semester hours credit, for a final total of six.
Sem. I, II. Total Credit: 6
Staff

Education 571 Investigation
Prerequisites: Education 501, and IE or HE 510.
Independent research conducted on a problem acceptable to both faculty investigation adviser and major adviser. Research techniques include a detailed outline, review of the literature, compilation of a bibliography, plan of attack, and interpretation of the findings. Preparation of investigation report according to thesis standards.
Sem. I, II, and SS. Credit: 4
Staff

EDUCATION—HOME ECONOMICS

Education 320 Methods of Teaching Home Economics
Prerequisite: Education 303 or parallel.
Principles of teaching home economics in high school including methods of teaching, unit and lesson planning, teaching aids, and classroom management. Observation and participation in high school home economics classes.
Sem. I, II. Credit: 3
Noble

Education 408 Student Teaching in Home Economics
Prerequisites: Education 320, 402, 441, or parallel.
Supervised observation, participation, and teaching of home economics in secondary school. Students participate in entire secondary school program. Experience available in both on and off campus teaching centers.
Sem. I, II. Credit: 6
Noble, Harper, Elliott

Education 410 Administration in Home Economics Education
Prerequisites: Education 320, 408, or parallel.
Study of the activities of the home economics teacher other than

classroom teaching, including school lunch supervision, club sponsorship, school and community relationships, planning, equipping, and managing the home economics department.
Sem. I, II. Credit: 3
Noble

Education 413 Teaching Vocational and Adult Homemaking

Methods of instruction adapted to meet the needs, interests, and abilities of juveniles and adults in the local schools of vocational and adult education.
Sem. I, II. Credit: 2
Elliott

Education 415 Workshop in Vocational and Adult Homemaking

Development of teaching materials and aids in adult homemaking. Applicable to the training of call-staff teachers. Work directed towards the needs of teachers, coordinators, and local supervisors of vocational and adult homemaking.
SS. Credit: 2 to 4
Staff

Education 416 Problems in Teaching Vocational and Adult Homemaking

Prerequisites: Education 402, Education 413, and three years teaching vocational and | or adult homemaking.

Problems of special difficulty common to experienced teachers analyzed and tentative solutions developed.
Sem. I, II. Credit: 2
Elliott

Education 436 Course Development

Prerequisites: Education 320, 408, or parallel.

Practices and techniques in development of home economics courses, course revision, and preparation of resource units.
Sem. I, II. Credit: 2
Noble

Education 451 Evaluation in Home Economics Education

Prerequisite: Graduate or senior standing.

Criteria, techniques, and devices for evaluating the home economics program. Opportunity for developing measuring devices.
SS. Credit: 2

Education 508 Curriculum Studies in Home Economics

Prerequisite: Graduate Standing.

Review of recent educational literature on curriculum planning. Principles of curriculum construction. Evaluation of curriculum practices and techniques. Students may work on their own curriculum problems.
SS. Credit: 2 or 4

Education 520 Current Problems in Home Economics Education

Prerequisite: Graduate Standing.

Identification and analysis of problems current in the field of home economics education. Term paper on individual problem.
SS. Credit: 2
Noble

Education 561 Seminar in Home Economics Education
Prerequisite: Graduate Standing.
Individual work on problems selected on basis of student needs.
SS. Credit: 2

EDUCATION—INDUSTRIAL EDUCATION

Education 228 Business Management in Industrial Education
The function of business administration and management in teaching and supervision of shop work; departmental and room planning; building standards and utilization; selection, care, and arrangement of supplies and equipment; budgets and records; purchasing and inventory control; evaluation procedures.
Sem. I, II. Credit: 2
Chinnock

Education 234 Activity Analysis
Prerequisite: Sophomore Standing.
Development of an orderly procedure for the identification of instructional units and projects to be used for teaching purposes. Development of outlines for writing instruction sheets and teaching of each unit.
Sem. I, II. Credit: 2
Jarvis

Education 235 Trade Analysis
For vocational majors. May be substituted for Education 234 in the curriculum. Techniques of analyzing occupations into instructional units for vocational teaching.
Jarvis Credit: 2

Education 236 Course Development
Prerequisite: Education 234.
Planning, organizing, and building courses of study. Content derived from activity analysis. Aims, reference materials, suggested projects, teaching methods, instructional aids and evaluation included.
Sem. I, II. Credit: 2
Jarvis

Education 305 Methods of Teaching Industrial Arts
Study of various methods of presenting lessons according to objectives; visual aids; lesson plans; instruction sheets, as well as oral instruction, included. Directed observation of representative school shops.
Sem. I, II. Credit: 2
Chinnock

Education 357 Educational Organization
Prerequisite: Junior standing in education sequence.
Organization of teacher's professional work in analysis, selection, and teaching on the lesson, subject, and curriculum levels. Functional assignment of school operating responsibility; measurement of teaching and supervisory staffs; continuous survey.
Sem. I, II. Credit: 2
Bowman

Education 403 Workshop in Trade and Industrial Education

Prerequisite: Limited to experienced qualified teachers. Individual approval required before enrollment.

The work will be suited to the specific needs of each individual. For teachers, coordinators, and local supervisors. Supplements required classifications courses but cannot be substituted in lieu of them.

SS. Credit: 2 to 4

Staff

Education 407 Teaching Trade and Industrial Subjects

Recognized principles and methods of teaching applied to typical shop and | or related subjects situations as found in the school of vocational and adult education.

SS. Credit: 2

Staff

Education 408b Student Teaching (Industrial Education)

Prerequisite: Junior or Senior Standing.

Provides student teaching opportunities for the junior and senior high school levels of education in the major areas of the Industrial Arts program. Opportunities available for student teachers to acquire experience in several types of Industrial Arts shops: the Comprehensive General Shop, Unit General Shop, and the Unit Shop. Individual conferences with the Critic Supervisor and group conferences with the Supervisor of Student Teaching.

Sem. I, II. Credit: 4 or 6

Chinnock

Education 443 Problems in Teaching Trade and Industrial Subjects

Individual work following approved practice in the development of teaching material for vocational teaching.

SS. Credit: 2

Staff

Education 463 Industrial Arts Education Workshop

Prerequisites: Senior undergraduate standing with civilian or armed service experience in teaching.

Primarily for teachers with experience who have selected problems on which they wish to do further study. Opportunity given for work in typical areas such as preparation and use of instruction material; methods of instruction; teaching as well as instructional management aids; shop business management; shop planning and evaluation.

SS. Credit: 2

Chinnock and others

Education 475 Interviewing Techniques

The interview as a tool in interpersonal relationships; principles of interviewing; how to interview; pooling measurement information for diagnostic treatment; writing and interpreting case studies.

SS. Credit: 2

Staff

Education 480 Theory and Organization of General Shop

Prerequisite: Senior standing (Junior standing permissible if student has Senior standing in educational sequence.)

Industrial Education in general and vocational education. Philosophy and types of general shops. Purpose and progress classifications of

pupils, selection of instructional materials, instructional methods, shop layout and equipment, cost accounting, shop management, and personnel organization.
Sem. I, II. Credit: 2
Brown

ENGLISH

English 102a Freshman Composition
Required of all freshmen. Designed to give the incoming freshmen competence in grammatical analysis and correctness, punctuation, mechanics, and the beginnings of logical organization of material.
Sem. I, II. Credit: 3
Callahan, Fleming, Hain, Hoving

English 102b Freshman Composition
Prerequisite: English 102a.

Required of all freshmen. Continuation of English 102a, principles and practice of rhetorical effectiveness in writing, through increased vocabulary, variety of sentence structure, and varying modes of presentation of material. A competence test in vocabulary is partial requirement for passing.
Sem. II. Credit: 3
Callahan, Fleming, Hain, Hoving

English 216 Survey of English Literature
Prerequisite: English 102b.

An introduction to English literature from Beowulf to the end of the nineteenth century. Readings, reports, lectures, class discussions.
Sem. I, II. Credit: 2
Hain

English 306 Journalism
Prerequisite: Junior Standing.

Practice and theory of news gathering and reporting, journalistic style, copy and proof reading. Discrimination newspaper reading stressed. Notice taken of the history of journalism, libel.
Sem. I. Credit: 2
Fleming

English 346 Expository Writing
Prerequisite: English 102b.

Practice and theory of the everyday tasks of exposition, the research report, and the industrial report.
Sem. I, II. Credit: 3
Callahan, Fleming, Hain, Hoving

English 348 Survey of American Literature
Prerequisite: English 102b.
An introduction to American literature from colonial times to the present. Readings, reports, lectures, class discussions.
Sem. I, II. Credit: 2
Callahan

English 402 Fiction

Prerequisite: English 216 or English 348.

A study of the novel primarily as it interprets life in the eighteenth, nineteenth, and twentieth centuries in both England and America.
Sem. I, II. Credit: 2
Hoving

English 404 Poetry

Prerequisite: English 216 or English 348.

A study of representative American and English poets of the late nineteenth and twentieth centuries.
Sem. I. Credit: 2
Callahan

English 406 Drama

Prerequisite: English 216 or English 348.

A study of the principles of dramatic literature, with intensive reading of a few great types and wider reading of other plays, regardless of time of composition or national origin. Emphasis upon Shakespeare.
Sem. II. Credit: 2
Callahan, Hain

English 410 Writing and Selling Feature Articles

Prerequisite: English 102a.

Practice in techniques of writing and selling feature articles for appropriate markets. Students required to submit articles for potential publication.
Sem. II. Credit: 2
Fleming

SPEECH

Speech 106 Speech Improvement

Required of all freshmen. Improvement of speech proficiency and personality through individual, group and class projects.
Sem. I, II. Credit: 2
Palzer, Ziemann

Speech 223 Group Speech Activities

Informal, semi-formal, and formal group activities.
Sem. I, II. Credit: 2
Palzer, Ziemann

Speech 320 Advanced Speech

Projects in group analysis and audience participation.
Sem. I, II. Credit: 2
Palzer

Speech 444 Play Production

Elective for juniors and seniors. Stage direction, scenery, makeup, and lighting problems.
Sem. I, II. Credit: 2
Ziemann

MATHEMATICS

Mathematics 209 College Algebra

Fundamental operations and problems in college algebra, including special work in logarithms and the slide rule. Special efforts made to give each student his maximum progress.

Sem. I, II. Credit: 4

Rich, Harbour, Reneson

Mathematics 213 Trigonometry

Prerequisite: Mathematics 209.

Introduction to the elements of trigonometry and the solution of the right and the oblique triangle. Slide rule and logarithmic calculations in solving practical problems. One field problem in the use of the sextant or the transit.

Sem. I, II. Credit: 3

Rich, Tustison, Harbour, Reneson

Mathematics 216 College Geometry

Prerequisites: Mathematics 209, and 213, or consent of the instructor.

Construction of three-dimensional figures; classical treatment of selected material to provide experience in giving independent demonstrations; includes a few topics in spherical geometry.

Sem. I. Alternate years Credit: 2

Rich, Harbour

Mathematics 220 Spherical Trigonometry

Prerequisites: Mathematics 209, 213, and 216, or consent of the instructor.

Primarily the solution of the spherical triangle with special application to the astronomical triangle. Basic parts of spherical geometry as they apply will be covered. Adapted to those who are interested in the problems in aviation and in world travel.

Sem. I. Alternate years Credit: 2

Rich, Harbour

Mathematics 314 Analytic Geometry

Prerequisites: Mathematics 209 and 213; or consent of the instructor.

Algebraic treatment of geometry. A graphical analysis of the straight line, the circle, and conic sections in general.

Sem. I. Credit: 2

Rich

Mathematics 315 Calculus

Prerequisites: Mathematics 209, 213, and 314; or consent of the instructor.

A course of differential and integral calculus with practical applications.

Sem. II. Credit: 4

Rich

MUSIC

(Total of two semester hours of credit may be earned in music courses and organizations).

Music 150 Solfeggio

Study in the foundation of musical education. Such fundamental

principles as rhythmic notation, measure, three against two, tonal notation and relations, intervals and inversions, diatonic and chromatic scales, signatures, and rhythmic melodic dictation are studied.
Sem. I. Credit: 1
Frailey

Music 151 Harmony 1a
Prerequisite: Music 150.
Detailed study of chord construction. All triads in major and minor modes, and dominant sevenths and their inversions. Dispersed harmony. Keyboard work and the playing of cadences.
Sem. II. Credit: 1
Frailey

Music 152 Harmony 1b
Prerequisite: Music 151.
Introduction to counterpoint; passing tones; contrapuntal treatment of the harmonic material of Harmony 1a. Harmonization of scales and simple melodies at the keyboard.
Sem. I. Credit: 1
Frailey

Music 153 Introduction to and Appreciation of Music
Fundamentals of music including form, harmony, instrumentation, and history. Presentation is through lecture, illustration, and recordings.
Frailey Credit: 1

Music 160 Theory
Prerequisites: Music 151 and 152.
Acoustics; musical terminology; notation; ornamentation; the Gregorian modes; description of the orchestral instruments; analysis of music forms; including the song forms. Also practical work in elementary orchestration. Summarizes the knowledge necessary to every teacher and professional musician.
Sem. I. Credit: 1
Frailey

Music 162 Conducting
Prerequisites: Junior standing; participation in at least one of the musical organizations of the college.
Technique of conducting. Chorus and orchestra from veiwpoint of prospective conductor. Principles of interpretation. Score reading and transposition. Care and classification of voices.
Sem. II. Credit: 1
Frailey

Choral Organizations
Membership in the Glee club is open to all students, but under classmen, especially, are urged to become members. Careful evaluation and testing for classification, basic principles of proper breathing and good tone production, extensive work in sight reading, and the fundamentals of good choral techniques are studied throughout the year.
The Symphonic Singers, an a Cappella choir of seventy voices, is representative of the best Stout has to offer in choral work. The

major portion of these singers are one year glee club graduates, and their singing is rapidly earning for them a national reputation. The many appearances during the year include an annual Spring Tour.
Frailey

Music 164 Men's Glee Club
Full Year Credit: 1
Frailey

Music 165 Women's Glee Club
Full Year. Credit: 1
Frailey

Music 166 The College Band
Membership in the college band is open to all students who have had training and experience in the playing of a band instrument. The band not only presents formal concerts, but plays for all athletic events. (No credit allowed if credit has already been given in Orchestra).
Full Year. Credit: 1
Frailey

Music 167 The College Orchestra
The orchestra is an organization of twenty-five members with symphonic instrumentation. Rehearsals are held once a week and special attention is given the string section in private rehearsals. This organization makes public appearances on and off the campus, and provides the accompaniment to the larger choral works presented by the combined glee clubs. (No credit allowed if credit has already been given in Band).
Full Year. Credit: 1
Frailey

PHYSICAL EDUCATION and COACHING

Two semester credits required of all men.

Hygiene 101 (Men)
Personal and general hygiene for the improvement of living. Considers health in terms of life values, ways for improvement of health and prevention of disease.
Sem. I, II. Credit: 1
Johnson

Physical Education 127 Physical Education I (Men)
Wide range of floor work and competitive games. Seasonal work in athletics. Physical efficiency tests to determine individual improvement. Life saving tests to qualified individuals who desire Red Cross certificates. One year of physical education is required and should be taken during freshman year.
Sem. I, II. Credit: 0
Johnson, Storti

Physical Education 128 Physical Education I (Women)
Four quarters of physical education are required of all freshmen women. Two of these must be "Body Building" and "Swimming." Two other activities may be selected for the remaining two quarters from the following: field hockey, soccer, tennis, archery, bas-

ketball, volleyball, folkdancing, softball, badminton.
Sem. I, II. Credit: 0
Antrim, Assistant

Physical Education 228 Physical Education II (Women)

Four quarters of physical education are required of all sophomore women, but only one of these is a requirement, swimming. Each woman is urged to select one individual sport to be used as a hobby during the junior and senior years and one team sport to develop a cooperative spirit. Electives for sophomore year are: field hockey, soccer, tennis, archery, basketball, volleyball, folk dancing, softball, badminton.
Sem. I, II. Credit: 0
Antrim, Assistant

Physical Education 263 Basketball Coaching (Men)

Prerequisite: Physical Education 127 (18 weeks).

Methods of teaching and coaching basketball. Specific techniques analyzed. Definite plan of offense and defense presented.
Sem. I, 2nd quarter; Sem. II, 3rd quarter Credit: 1½
Johnson

Physical Education 265 Football Coaching (Men)

Prerequisite: Physical Education 127 (18 weeks).

Methods of teaching and coaching football. Specific techniques analyzed. Definite plan of offense and defense presented.
Sem. I, 1st quarter; Sem. II, 4th quarter. Credit: 1½
Storti

Physical Education Intramural Athletics (Men)

A complete program of all sports consisting of an "Athletics for All" aim.
Sem. I, II.
Johnson, Storti

Physical Education Recreational Sports (Women)

The Women's Athletic Association sponsors various sports which promote interest and enthusiasm in recreational activities with intramural competition. An opportunity is created for every girl in school to participate in various recreational activities, and in "play for play's sake." Organized tournaments are conducted during the year in volleyball, badminton, deck tennis, basketball, bowling, tennis, and softball. Unorganized points may be earned in hiking, skating, bicycling, archery, and swimming.

NATURAL SCIENCES

Science 115 Inorganic Chemistry

Chemical viewpoints, laws, principles and atomic structure as related to chemical reactions. The study of non-metals is followed by that of metals. Material taught related to the needs of Home Economics and Industrial Education majors. As far as possible, experiments are selected to assist in such applications.
Sem. I, II. Credit: 5
McCalmont, Cox

Science 206 General Bacteriology

Morphological and physiological characteristics of yeasts, molds, and bacteria; methods used in culture and identification; introductory studies in bacterial analysis of water, milk and other problems in sanitation; food bacteriology.

Sem. I, II. Credit: 3

Marshall

Science 208 Organic Chemistry

Prerequisite: Chemistry 115.

Influence of structure on chemical behavior; isomerism; the study of hydrocarbons, fats, soap, carbohydrates, proteins, plastics, synthetic fabrics, synthetic drugs, and vitamins. Appreciations are sought in related organic chemistry, i.e., in cookery, nutrition, laundry, cleaning, and other household as well as industrial processes.

Sem. II. Credit: 4

Cox

Science 214 Physiology and Anatomy

Man's place in the biological world; Human anatomy based on dissection of the cat and other laboratory material; fundamental physiological processes of all the organ systems; embryological development and inheritance of man.

Sem. I, II. Credit: 5

Marshall, Arneson

Science 316 Zoology

Survey of the animal field with emphasis on classification, ecology, and evolution and other general subjects. Special consideration is given to parasites and other groups which are economically important to man.

Sem. I. Credit: 3

Arneson

Science 322 Biochemistry

Prerequisites: Chemistry 208 and Biology 214.

Study of colloids; of proteins and protein digestion products; of the intermediary metabolism of carbohydrates, fats, and proteins in the animal body. Qualitative and quantitive determinations of the end products of metabolism. Nutritional significance of minerals, vitamins, and hormones.

Sem. I. Credit: 3

Cox

Science 362 Advanced Physiology

Prerequisites: Biology 214 and Chemistry 115.

Histological and quantitative studies on human blood, experiments on frog and turtle hearts and on muscle-nerve preparations of the frog. Experiments on human body.

Sem. II. Credit: 3

Arneson

Science 421 Physics I

Electricity. Mechanics. Heat. Practical applications of general physics laws is stressed in special laboratory problems, or demonstrated by apparatus or machines in actual use. Content applicable to the needs of prospective teachers in industrial education, home economics, and the sciences.

Sem. I, II. Credit: 5

Tustison, Rich, Harbour

Science 422 Applications of Bacteriology

Not open to students who have had Bacteriology 206, but may be substituted for that requirement.

Application of bacteriology to food preservation and community health. Relation of bacteria to the home and institutions.

Sem. I, II. Credit: 3

Marshall

Science 423 Physics II

Sound, light, and an introduction to new developments in physics. A continuation of the study of the general laws of physics. Includes acoustics, vision, lighting standards, optical instruments, polarization, and fluorescence. Equipment is exceptionally good.

Sem. I, II. Credit: 3

Tustison, Rich, Harbour, Reneson

Science 425 Physics III

Prerequisites: Physics 421 and 423, Mathematics 209.

Theory of Strength of Materials. Problems involving materials of construction in machine and building trades. Laboratory. Standard and special tests.

Sem. I, II. Credit: 3

Reneson

Science 427 Physics IV Electronics

Prerequisites: Physics 421 and consent of the instructor.

An introduction to the study of electron tubes at work. The control of the action of machines used in industry by means of electronic devices.

Sem. II. Credit: 3

Rich

Science 432 Heredity and Eugenics

Study of laws of inheritance and means for improvement of the human race.

Sem. I. Credit: 2 or 3

Arneson

Science 442 Community Hygiene

Fundamentals of health, etiology of disease, control of communicable disease, public health programs. Pathological, bacteriological, and immunological aspects emphasized. Operation of national and state health laws.

Sem. I, II. Credit: 2 or 3

Marshall

Science 445 Chemistry of Materials

Prerequisite: Chemistry 115.

Needs of the members of the class shape the trend and emphasis to be placed. At present, the topics most valuable are: rubber, natural and synthetic; fuels and lubricants as applied to use in all kinds of machines; and metals both ferrous and non-ferrous. Application in subject matter directly necessary to understand Industrial Arts problems.

Sem. II. Credit: 3

McCalmont

SOCIAL SCIENCES

Social Science 201 General Economics

Principles and problems of production, exchange, distribution, and consumption.

Sem. I, II. Credit: 3

Agnew, Parmer

Social Science 301 Economic History of the United States

Prerequisite: Social Science 201.

Study of the economic evolution of the United States since colonial times. Special emphasis is placed on the development of economic problems and the foundations of modern industry.

Sem. I, II. Credit: 3

Agnew

Social Science 309 General Sociology

Study of social heritage in terms of structures and functions of the group. Sociogenesis of behavior patterns and modern world perspective.

Sem. I, II. Credit: 3

Parmer

Social Science 311 Government

Prerequisites: Social Science 201, 309, or consent of instructor.

Basic course with emphasis on political principles, processes, and problems. Functional study of American governmental units. Comparative study of selected major foreign governments.

Sem. I, II. Credit: 3

Price

Social Science 326 Problems of the Family

Socio-psychological analysis of family life with emphasis on intra- and inter-personal adjustments.

Sem. I, II. Credit: 3

Staff

Social Science 407 History of the Americas

Prerequisites: Social Science 201, 309; or consent of instructor.

History of the United States of America, broadened to include parallel developments in Latin America and Canada.

Sem. I, II. Credit: 4

Agnew

Social Science 409 Recent History of U. S.
American history in the twentieth century. Study of recent world problems in which the United States has played a part.
Sem. II. Credit: 2
Agnew

Social Science 410 Modern World
Prerequisites: Social Science 201, 309; or consent of instructor.
Modern trends in terms of historical backgrounds, providing a frame of reference for interpreting the contemporary world. United Nations.
Sem. I, II. Credit: 4
Agnew

Social Science 411 Social Problems
Prerequisites: 9 hours of social science or consent of instructor.
Analysis, interpretation, and synthesis of sociological phenomena with purposive solutions to attain a social philosophy of life.
Sem. II. Credit: 2
Parmer

Social Science 414 Labor Problems
Prerequisite: Social Science 309.
Study of the problems of the worker in modern industry, backgrounds of labor movements, current union organization and practice, the foreman; labor and management relations, collective bargaining, wages, hours, political activity, and government and labor relations. The Taft-Hartley Law.
Sem. II. Credit: 3
Parmer

Social Science 417 American Politics
Analysis of modern political parties, nominating methods, campaigns, elections, practical politics in legislative bodies, and machines and bosses.
Sem. II. Credit: 2
Agnew

Industrial Education 520 Labor and Industrial Relations
Prerequisite: Graduate Standing.
Human relations in industry from the viewpoints of labor, management, and the government.
Sem. I, II. Credit: 2
Agnew and others.

HOME ECONOMICS

Art 106 Fundamentals of Design
A basic course prerequisite for further art work. Principles of design, color theory, and practical applications in the field of home economics.
Sem. I, II. Credit: 3
Hinkley

Art 206 Art Appreciation
Development of critical judgment in evaluating traditional and contemporary art forms. Emphasis on art and its enrichment of everyday life. Visual aids, visits to Minneapolis and St. Paul galleries and shops.
Sem. II. Credit: 2
Amon

Art 220 Clothing Selection
Study of importance of personal appearance and factors which contribute to it. Application of art principles to the selection of clothing.
Sem. I, II. Credit: 2
Jeter, Van Ness, Assistant

Home Economics 244 Weaving
Warping a loom; elementary and complex weaving. Materials purchased by the student.
Sem. I, SS. Credit: 2
Amon

Art 323 Problems in House Furnishing
Prerequisite: Art 334.
Curtains, slip covers, and other articles for the house may be planned and made, and furniture reconditioned.
Sem. I, II. Credit: 2
Amon

Art 332 Advanced Design
Prerequisite: Art 106.
Creative experiences in color and design. Design related to clothing and interior decoration. Techniques of textile design: block printing, stencil, silk screen, batik, stitchery and dyeing.
Sem. I. Credit: 2
Amon

Art 334 House Furnishing
Prerequisite: Art 106.
Study of housing and house furnishing needs as they relate to human problems; application of art principles through color, design, and materials; development of consumer discrimination.
Sem. I, II. Credit: 3
Amon

Art 400 Crafts
Prerequisite: Art 106.
Creative design and construction in several crafts: weaving, leather, ceramics, bookbinding, blockprinting, and fabrics.
Sem. I, II. Credit: 2
Amon, Hinkley

Art 410 Pottery
Making pottery with coil and slab methods, throwing on the wheel, underglaze painting, biscuit firing, glaze firing.
Sem. II. Credit: 2
Amon

Art 430 Art History

Survey of the fine arts in the most significant periods with emphasis on contemporary work. Visits to museums and galleries.
Sem. II. Credit: 2
Hinkley

Art 436 Costume Design

Prerequisite: Home Economics 218.
Creative approach to clothing design. Experiments with different sources for original design.
Sem. I. Credit: 2
Hinkley

Art 446 Sketch

Sketching costume figures, interiors, charts and other visual devices. Form, value, color, composition; charcoal, pen and ink, and water color.
Sem. I. Credit: 1
Amon, Hinkley

Art 460 Creative Arts

Prerequisite: Art 400.
Design and construction in materials best suited to students' interest and ability.
Sem. I. Credit: 2
Amon, Hinkley

Art 526 Seminar in Related Art

Prerequisite: Graduate Standing.
Flexible course in which the interests and needs of students are given important consideration. Fundamental material in the integration of art with home economics subject matter.
SS. Credit: 2
Staff

FOODS, DIETETICS, and INSTITUTIONAL MANAGEMENT

Home Economics 114 Food Preparation

Study and application of basic principles used in the preparation of food. Correct techniques and methods of preparation stressed. Products evaluated according to accepted food standards.
Sem. I, II. Credit: 3
Carrison

Home Economics 212 Family Nutrition

Prerequisites: Home Economics 114. Chemistry 208 should precede or parallel.
Scientific study of the fundamental principles of human nutrition as a basis for the selection of food for the family group from infancy through old age.
Sem. I, II. Credit: 3
Grundmeier

Home Economics 230 Food Preparation
Prerequisite: Home Economics 114.
Continuation of food preparation as studied in Home Economics 114.
Sem. I, II. Credit: 3
Carrison, Grundmeier

Home Economics 300 Applied Institution Management
Prerequisite: Home Economics 308.
Students prepare and serve meals in the college tea room under the direction of a student manager. Special emphasis placed on meal planning, recipe selection, the most economical use of materials and time, dining room management, food preparation, and cost control.
Sem. I, II. Credit: 3
Killian

Home Economics 308 Meal Management
Prerequisites: Home Economics 212 and 230.
Planning, preparation, and service of meals. Special attention given to costs, equipment, and management of family meals and guest occasions.
Sem. I, II. Credit: 3
Grundmeier

Home Economics 310 Nutrition and Dietetics
Prerequisites: Home Economics 212, 322, Chemistry, or parallel.
The science of nutrition, stressing the environmental, physical and chemical factors involved in the digestive and metabolic processes. Planning of dietaries.
Sem. I. Credit: 3
Grundmeier

Home Economics 328 Institution Administration
Prerequisite: Home Economics 452 or 300.
Study of the organization and administration of the food service in various types of institutions such as hospitals, schools, and commercial establishments. Course includes personnel management, purchasing methods, the keeping of records and accounts, and housekeeping management.
Sem. II. Credit: 3
Killian

Home Economics 400 Food Demonstrations
Prerequisites: Home Economics 230 and 308.
Study and application of the technique involved in planning and giving demonstrations. Observation of demonstrations given by Home Economics specialists in the commercial field.
Sem. II. Credit: 2
Carrison

Home Economics 418 Diet in Disease
Prerequisites: Home Economics 310, Biology 362, or parallel.
Study of the modification of a normal diet indicated for various pathological conditions.
Sem. II. Credit: 3
Meiller

Home Economics 423 Planning and Equipping Home Economics Laboratories

The planning of pleasing and functional teaching centers in homemaking departments. Principles of arranging floor space; selection, placement, care and use of equipment; suitable finishes for walls, working surfaces and floors.

Sem. II Credit: 2

Carrison, Noble, and Equipment Specialists

Home Economics 438 Experimental Food

Prerequisites: Home Economics 230 and Chemistry 208.

Experimentation with selected food materials, techniques, and equipment. Each student is given the opportunity for directed study and work in an individually chosen area.

Sem. II. Credit: 3

Meiller

Home Economics 442 Advanced Food Preparation

Prerequisite: Senior or graduate standing.

Based on the student's special interest in the field of nutrition.

Sem. I, II. Credit: 2 or 4

Home Economics 443 School Food Service

Prerequisites: Home Economics 212 and Home Economics 308 or its equivalent.

Educational possibilities of this program considered, also detailed studies of provisions for the school lunch program, management, menu planning, food preparation, and service.

SS. Credit: 2 or 3

Killian

Home Economics 446 Food Preservation

Prerequisite: Home Economics 230.

Extensive study and practical application of the methods and principles of food preservation. Special attention given to freezing of foods.

SS. Credit: 2

Home Economics 452 Institution Food Preparation

Prerequisites: Home Economics 230 and 308.

Laboratory work in institutional meal planning, standardization of recipes, calculation of food costs, operation and care of equipment, preparation of food for the college cafeteria. Specific problems of food selection and large quantity preparation.

Sem. I, II. Credit: 3

Killian

Home Economics 463 Institution Management Problems

Prerequisites: Home Economics 452 or 300, and Home Economics 328.

Directed individual work in selected problems. Laboratory work in the college cafeteria and tea room.

Sem. I, II. Credit: 2 or 3

Killian

Home Economics 501 Trends in Nutrition
Prerequisite: Graduate Standing.
Recent developments in the field of nutrition.
SS. Credit: 2

Home Economics 508 Food Seminar
Prerequisite: Graduate Standing.
Discussion and interpretation of recent developments in foods.
SS. Credit: 1

Home Economics 511 Nutrition Seminar
Prerequisite: Graduate Standing.
Reports, discussions, and readings.
SS. Credit: 1

Home Economics 513 Institution Management Seminar
Prerequisites: Home Economics 452 or 300, and Home Economics 328, Graduate Standing.
Discussion and interpretation of recent developments in Institution Management.
SS. Credit: 1
Killian

Home Economics 545 Workshop in Foods
Prerequisite: Graduate Standing.
Individual development of subject matter, evaluation instruments, instructional materials, and demonstration techniques.
SS. Credit: 2 or 4

Home Economics 556 Advanced Experimental Food
Prerequisite: Home Economics 438 or its equivalent, Graduate Standing.
Directed individual investigation in food preparation. Involves an extensive study of principles and applications of research methods as applied to food investigations. Intensive literature review of study undertaken.
SS. Credit: 3 or 4

CLOTHING and TEXTILES

Home Economics 102 Clothing
Emphasis on personal clothing problems and good standards of dress for college women. Fundamentals of clothing construction. Integrated with Art 220.
Sem. I, II. Credit: 3
Jeter, Van Ness

Home Economics 218 Clothing Construction
Prerequisite: Home Economics 102.
Study of personal and technical problems in the selection and making of rayon and wool garments. Emphasis on fitting. Consideration given to the renovation of clothing.
Sem. I, II. Credit: 3
Jeter

Home Economics 315 Textiles

Study of fibers, yarns, weaves, finishes, and design as applied to the selection of clothing and household fabrics.

Sem. I, II. Credit: 3
Van Ness

Home Economics 316 Clothing Economics
Prerequisite: Home Economics 317.

Study of family clothing needs and expenditures. Consideration of production, merchandising and consumption of clothing.

Sem. II. Alternate years. Credit: 2
SS
Van Ness

Home Economics 320 Advanced Clothing Construction
Prerequisite: Home Economics 218.

Advanced clothing construction; tailoring techniques.

Sem. I, II. Credit: 2
Jeter

Home Economics 336 Clothing Problems

Emphasis on preparation for teaching of clothing. Evaluation and preparation of illustrative material. Flat pattern designing. Opportunity for individual studies.

Sem. I, II. Credit: 2
Jeter

Home Economics 412 Applied Dress Design
Prerequisite: Home Economics 218.

Application of principles of costume design in construction of garments by means of draping. Emphasis on individuality in costume through appropriate use of line, proportion, color, and texture. Field trip.

Sem. II. Credit: 2
Van Ness

Home Economics 414 Children's Clothing
Prerequisite: Home Economics 218.

Problems in selecting, planning, and the construction of children's clothing. Relation of design to self help. Garments designed and made for children who can be studied in the laboratory.

Sem. I, 1950 and alternate years. Credit: 2
Jeter

Home Economics 471 History of Costume
Prerequisite: Junior Standing.

Development of costume. Factors which influence change in fashion; qualities in style that make for lasting beauty; influence of the past on present-day costume.

Sem. I, 1949 and alternate years. Credit: 2
Jeter

Home Economics 472 Advanced Textiles
Prerequisite: Home Economics 315.
Investigations and new developments in the textile field. Opportunity for individual problem.
SS. Credit: 2
Van Ness

Home Economics 500 Tailoring
Prerequisite: Graduate Standing.
Application of advanced tailoring techniques in the making of a suit or coat. Preparation of illustrative material for teaching.
SS. Credit: 3
Jeter

Home Economics 514 Seminar in Clothing
Prerequisite: Graduate Standing.
Problems involved in the selection, adaptation, and presentation of clothing subject matter to meet various conditions. Choice of problems based on needs and interests of individual students.
SS. Credit: 1
Jeter, Van Ness

Home Economics 544 Workshop in Clothing
Prerequisites: Graduate standing and teaching experience.
Opportunity to do intensive work in some aspect of clothing study, working cooperatively in small groups.
SS. Credit: 2

FAMILY LIFE

Home Economics 116 Personal Development
An orientation course concerned with typical college problems—personal, social, professional.
Sem. I. Credit: 1
Kirk

Home Economics 317 Consumer Information
Study of motives in consumption; family income and expenditures; selection of commodities and services; buying and selling practices. Evaluation of consumer aids and investigation of local situations.
Sem. I, II. Credit: 3
Van Ness

Home Economics 318 Family Health and Home Nursing
Factors necessary to maintain the health of the family. Techniques of home nursing and care of minor illness.
Sem. I, II. Credit: 2
Trullinger

Home Economics 333 Household Equipment
Study of the selection, construction, operation, and mechanical care of household equipment as it is related to the well being of the family group.
Sem. I, II. Credit: 2
Trullinger

Home Economics 403 Home Management
Prerequisite: Junior Standing.

Management of family resources, time, energy, money and equipment. Emphasis on the social aspects and adjustments of family life. Residence in the Home Management House for six weeks with experience in the management of the household.

Sem. I, II. Credit: 3
Trullinger

Home Economics 224 Growth and Development of the Child
Prerequisite: Psychology 123.

Study of the physical, mental, emotional, and social growth of the child with guidance implications based on growth. Lecture. Discussion. Observation. One hour per week required for observation of nursery school children.

Sem. I, II. Credit: 2
Smith

Home Economics 424 Principles and Practices of Child Guidance
Prerequisite: Home Economics 224.

Factors involved in the successful personality development of the preschool child. Application of guidance principles to experiences of the preschool child. Evaluation of the literature in the field. Lecture. Discussion. Assisting in the nursery school.

Sem. I, II. Credit: 2
Smith

TECHNIQUE COURSES IN HOME ECONOMICS

Courses described below have been arranged in collaboration with the State Board of Vocational and Adult Education. The presentation of this group of technical courses has resulted from investigations made in the vocational schools of the state and from expressions of staff members and teachers for work of this type.

These classes to be offered during the summer session will be available first for teachers from City Vocational schools and the Rural Vocational centers; remaining vacancies may be utilized by other students. Undergraduate, post-graduate, and vocational classification credit will be allowed upon completion of course requirements.

Home Economics 240 Tailoring as Applied to Home Sewing

Basic course in tailoring techniques planned particularly for teachers working with out-of-school youth and adults. Instruction in the making of lapels, collars, pockets, sleeves, front facings, and buttonholes. Choice allowed in construction of a tailored garment or the preparation of samples of these processes, whichever teachers find most helpful for instruction purposes. Construction and manipulation of special tailoring equipment included.

SS. Credit: 3

Home Economics 241 Advanced Tailoring as Applied to Home Sewing
Prerequisite: Home Economics 240 or equivalent.

Emphasis placed on developing skill in using tailoring equipment in considering special problems of class members in tailoring processes. Preparation of illustrative material for teaching out-of-school youth and adults.
SS. Credit: 3

Home Economics 242 Costume Millinery

Construction and renovation of hats. Materials, style, construction fundamentals, care and renovation. Students furnish their own materials.
SS. Credit: 3

Home Economics 243 Rug Design and Construction

Rug design and construction. Selection of materials and equipment, dyeing, color harmonies, and designing of patterns for rug hooking. Students may select type of rug on which they wish to work.
SS. Credit: 3

Home Economics 245 Constructing Slip Covers and Draperies

Construction of slip covers, draperies, and other home accessories. Instruction in special finishes. Students may provide the piece of furniture upon which they wish to work, or may work in groups upon specially arranged projects.
SS. Credit: 3

Home Economics 246 The Repair and Maintenance of Home Furniture

Simple upholstery techniques for home repair and maintenance of furniture. Selection of furniture coverings, finishing and refinishing wooden surfaces. Students may provide their own work project.
SS. Credit: 3

INDUSTRIAL EDUCATION

SHOP WORK, DRAWING, and DESIGN

All courses in this group are nine weeks in length, meeting daily. Due to the variation in the types of content included in these courses, the following tabulation is given to indicate the time requirements for credits.

Figures in parentheses indicate hours in preparation:

1 period	per week (2)	18 wks.	1 semester hour
2 periods	per week (1)	18 wks.	1 semester hour
3 periods	per week (0)	18 wks.	1 semester hour
6 periods	per week (0)	9 wks.	1 semester hour
12 periods	per week (0)	9 wks.	2 semester hours
10 periods	per week (2)	9 wks.	2 semester hours

Industrial Education Orientation
(For Industrial Education Freshmen.)

Admission requirements, program operation, attendance regulations, credits, scholastic measurement. Analysis of characteristics of a

good performance in shop or drawing courses, in professional courses, in academic courses, and as a teacher. Personnel problems in physical, social, and mental phases. Curriculum opportunities, professional requirements, trend in requirements in calls for teachers. Significance of choices available.
Sem. I. Credit: 0
Bowman, Price **Meets 1 hr. per week**

BUILDING CONSTRUCTION

Industrial Education 249 Bricklaying
Elements of bricklaying applied in building walls, chimneys, piers, walling-in frames, turning arches, building fireplaces. Demonstrations and class work carried on under actual trade practice.
Sem. I, II. Credit: 2
Ray

Industrial Education 251 Bricklaying
Prerequisite: Industrial Education 249 or equivalent.
A continuation of Bricklaying 249 in advanced work, motion study. Problems planned under field conditions. Study of equipment, shop layouts, trade tests, scaffolding, safety and hygiene. Blueprints and outlines issued for reference.
Sem. I, II. Credit: 2
Ray

Industrial Education 354 Concrete Work
Elements of concrete work; mixtures, footings, foundations, special formwork, reinforcing, sweepwork, ornamental molds, pre-cast slabs. Field work assigned.
Sem. I, II. Credit: 2
Ray

DRAFTING

Industrial Education 118 Freehand Drawing
Basic fundamentals of freehand drawing; lines, circles, ellipses, geometric solids, freehand perspective. Shading, still life, thumbnails, technical sketching, blackboard practice, pen and ink work. Term sketch required.
Sem. I, II. Credit: 2
Ray

Industrial Education 121 Elements of Mechanical Drafting
Graphic representation of fabricated objects by various drawing techniques including orthographic projection, development, production illustration, etc.
Sem. I, II. Credit: 2
Green

Industrial Education 130 Aircraft Drafting
Prerequisite: Industrial Education 121.
Airfoil profiles, L.E. radius, angle of incidence, wing construction, elevator and stabilizer details, fuselage, landing gear, tubular structure, rigging details, engine mounting.
Sem. II. Credit: 2
Green

Industrial Education 224 Advanced Freehand Drawing and Design
Prerequisite: Industrial Education 118.

Alphabets, lettering, monograms, trade marks, advertising layouts, show card and poster work. Silk screen and stencil cutting. Memory sketching.

Sem. I, II. Credit: 2
Ray

Industrial Education 226 General Drafting
Prerequisites: Industrial Education 118 and 121.

The place of drafting in general education. Life situations, organization patterns, social and economic background. Problems involving the use of various types of organization patterns including flow sheets, operation diagrams, comparative value charts, working drawings, etc.

Sem. I, II. Credit: 2
Green

Industrial Education 227 Machine Drafting
Prerequisites: Industrial Education 118, 121, and one course from the metal work group.

Detailing of machine parts, technical sketching, measuring techniques, drafting conventions, standard parts, use of hand books.

Sem. I, II. Credit: 2
Green

Industrial Education 228 General Drafting
Prerequisites: Industrial Education 121 and 118.

Drawing techniques for various school levels including the vocational. Organization and preparation of a teaching syllabus. Concentration is recommended in chosen field.

Sem. I, II. Credit: 2
Ray

Industrial Education 229 Machine Drafting
Prerequisites: Industrial Education 227 and Mathematics 211.

Analysis of motion, motion diagrams. Design of various types of cams. Use of odontograph in gear layout. Spur and bevel gears. Worm and worm wheel.

Sem. II. Credit: 2
Green

Industrial Education 231 Architectural Drafting
Prerequisites: Industrial Education 121 and 118.

Elements of planning and construction for residences in frame and masonry. Lettering, symbols and conventions, footings, foundations, sills, cellar windows, casement and double hung windows, cornices, fireplaces, stairs. Preliminary planning and drawing of floor plans, elevations and perspective. Cost estimates.

Sem. I, II. Credit: 2
Ray

Industrial Education 233 Architectural Drafting
Prerequisites: Industrial Education 121, 118, and 231.
Preparation of working drawings for a five or six room residence. Optional layout of rooms for each student. Frame or masonry. Floor plans, elevations, details, and specifications. Rendered perspective. Term reports. Illustrated lectures on kitchens, bathrooms, living rooms, dining rooms, basements. Cost estimates.
Sem. I, II. Credit: 2
Ray

Industrial Education 234 Mechanical Drafting
Prerequisite: Industrial Education 121.
Advanced problems in projections, auxiliary views, intersections, revolutions and developments.
Sem. I, II. Credit: 2
Green

Industrial Education 329 Machine Drafting
Prerequisite: Industrial Education 227.
Production illustration. Various types of mechanical pictorial representation applied to machine parts.
Sem. I. Credit: 2
Green

Industrial Education 331 Architectural Drafting
Prerequisites: Industrial Education 121, 118, and 231.
Complete scaled model of a house from the student's plans for class demonstration. Landscaping and rendering of the model. Photograph of the exterior and interior.
Sem. I, II. Credit: 2
Ray

Industrial Education 431 Architectural Drafting
Prerequisites: Industrial Education 121, 118, 231, and 331.
Design of a shop, professional, apartment, or industrial building. Working drawings and rendered perspective required.
Sem. I, II. Credit: 2
Ray

Industrial Education 433 Machine Drafting
Prerequisite: Industrial Education 329.
Planning and designing machines. Considerations of strength, use, operation, manufacture. Planning jigs and fixtures.
Sem. II. Credit: 2
Green

Industrial Education 471 Architectural Drafting
Prerequisites: Industrial Education 231, 233, 331, and 431.
Fundamentals of architectural design; shades and shadows; perspective, rendering. Preparation of exhibition and competition drawings.
Sem. I, II. Credit: 2
Ray

ELECTRICAL WORK

Industrial Education 119 Industrial Electricity

Essentials of electricity including wire splicing, Ohm's Law experiment, cells and batteries, signal circuits, simple light and power circuits, house wiring, direct current lighting, and power circuits, direct current generators and motors, practical applied problems.
Sem. I, II. Credit: 2
Ruehl, Reneson

Industrial Education 343 Industrial Electricity
Prerequisite: Industrial Education 119.

Magnetic circuits as applied to coils, motors, generators, and transformers. Illumination. Insulation and insulators. Armature windings and winding projects. Mutual and self-inductance. Conduit wiring projects.
Sem. I, II. Credit: 2
Ruehl

Industrial Education 345 Industrial Electricity
Prerequisites: Industrial Education 119 and 343.

Theory and essentials of alternating currents. Shop problems dealing with alternating current measuring instruments, transformers, and various types of alternating current motors and generators and their accessories.
Sem. I, II. Credit: 2
Ruehl

Industrial Education 347 Electricity (Radio)
Prerequisite: Industrial Education 119 or equivalent.

Theory and fundamentals of radio communication circuits. Standard circuits set up and tested in the laboratory. Part of the class period devoted to code practice.
Sem. I, II. Credit: 2
Ruehl

Industrial Education 357 Electricity (Radio)
Prerequisite: Industrial Education 347 or equivalent.

Continued study of radio communication circuits and power supplies. Devoted largely to shop and laboratory work. Radio testing. Equipment, its construction and use.
Sem. I, II. Credit: 2
Ruehl

MECHANICS

Industrial Education 242 General Motor Mechanics

Study of internal combustion engines; suspensions and steering; fuel systems; ignition systems; power trains. Application to vehicles of transportation. Lectures, laboratory work, and visual aid materials used.
Sem. I, II. Credit: 2
Rawson

Industrial Education 245 Auto Mechanics

Prerequisites: Industrial Education 113, 119.

Fender and body repairing; refinishing; interior trim repairing; servicing, adjusting or repairing units of the chassis, not including the engine. Lectures, laboratory work.

Sem. I, II. Credit: 2

Rawson

Industrial Education 247 Auto Mechanics

Prerequisite: Industrial Education 245.

Engine rebuilding and tune-up; servicing and repairing engine accessories. Typical jobs are: reboring and honing cylinders; fitting pistons, rings, and piston pins; grinding, seating, and testing valves; repairing and adjusting carburetors. Lectures, laboratory work.

Sem. I, II. Credit: 2

Rawson

Industrial Education 253 General Mechanics

Prerequisites: Industrial Education 121, 119, 115, 107, and 109.

Selections of jobs in home mechanics; practical mechanics; and simple mechanics. Adaptable to courses for girls in public school courses. Projects in woodworking, ceramics, electricity, woodfinishing, plastics, bench metal working, and leather working.

Sem. I, II. Credit: 2

Kranzusch

Industrial Education 365 General Mechanics

Prerequisite: Industrial Education 253.

Continuation of General Mechanics. New fields explored and new problems developed.

Sem. I, II. Credit: 2

Kranzusch

Industrial Education 369 General Industrial Mechanics

Prerequisite: Sophomore Standing.

General survey of the industries. History and study of technological developments.

Sem. I, II. Credit: 2

Reneson

Industrial Education 375 Industrial Mechanics

Prerequisite: Industrial Education 369 or equivalent.

Selective individual study of some particular mechanical phase of industry. Recognition and interpretation of mechanical and social change for students on the secondary level.

Sem. I, II. Credit: 2

Reneson

Industrial Education 341 Auto Mechanics

Prerequisites: Industrial Education 245 and 247.

Principles of operation, adjustments and repair of the various types of circuits, operating units, and storage batteries. Diagnosing, locating, and repairing electrical troubles on live cars. Lectures, laboratory work.

Sem. I, II. Credit: 2

Rawson

Industrial Education 451 Auto Mechanics
Prerequisites: Industrial Education 245, 247, and 341.
Equipment and management problems for prospective teachers of auto mechanics; selecting and organizing teaching material.
Sem. II. Credit: 2
Rawson

METAL WORKING

Industrial Education 113 Machine Shop
Basic instructional units covering the lathe, milling machine, drilling machine, shaper, and grinding machine applied in projects. Shapes of cutting tools, grinding, setting, and operating. Feeds and speeds for cutting various metals.
Sem. I, II. Credit: 2
Milnes

Industrial Education 115 Sheet Metal
Fundamental machine and hand tool operations and information topics; the development of simple patterns involving parallel and radial lines; direct layout and short methods; study of markets, manufacture, and buying of equipment and supplies.
Sem. I, II. Credit: 2
Keith

Industrial Education 235 Machine Shop
Prerequisite: Industrial Education 113.
Helicol gear cutting and rack cutting on the milling machine. Internal and external square thread cutting on the lathe. Cylindrical grinding on the universal grinder.
Sem. I, II. Credit: 2
Milnes

Industrial Education 237 Machine Shop
Prerequisites: Industrial Education 235 and 227.
Worm gearing, tool making, tool and cutter grinding. Utilization of materials. Studies of selection of appropriate instructional material and projects.
Sem. I, II. Credit: 2
Milnes

Industrial Education 239 Sheet Metal
Prerequisite: Industrial Education 115.
Drafting irregular patterns by means of triangulation with the top view in the layout, top and side view in the layout, side view only in the layout; shop practice in the various fields of sheet metal working.
Sem. I, II. Credit: 2
Keith

Industrial Education 241 Sheet Metal
Prerequisites: Industrial Education 115 and 239.
Continued practice in layout and shop work. Some cabinet work and spot welding is done.
Sem. I, II. Credit: 2
Keith

Industrial Education 243 Foundry

Instructional units in molding applied in bench and floor molds; core making, cupola practice. Melting and pouring brass and aluminum.
Sem. I, II. Credit: 2
Milnes

Industrial Education 333 Sheet Metal

Prerequisites: Industrial Education 115, 239, and 241.
Advanced operations such as raising, forming, stretching, shrinking, bending, spinning, chasing, seaming, piercing, etching, coloring; applied in projects in the working of copper, brass, aluminum, pewter, monel metal, stainless steel, and nickel silver; related technical information.
Sem. I, II. Credit: 2
Keith

Industrial Education 335 General Metal

Prerequisite: Industrial Education 113.
General shop of the trade group type. Organization, layout, equipment, management, uses of instructional material. Selected projects representing bench metal, forging, heat treating, machine shop, oxy-acetylene welding and cutting.
Sem. I, II. Credit: 2
Betterley, Rawson

Industrial Education 337 Foundry

Prerequisite: Industrial Education 243.
Advanced molding projects, match plates for production work, metallurgy of the foundry, several heats of iron, brass and aluminum.
Sem. I, II. Credit: 2
Milnes

Industrial Education 355 General Metal

Prerequisites: Industrial Education 335 and 455.
Advanced work in ornamental and tool forging. Oxy-acetylene welding, power hammer work, bench metal, heat treating, and use of ceramic tile in combination with metal. Study of new machines, tools, metals, and manufacturing costs.
Sem. I, II. Credit: 2
Betterley

Industrial Education 435 Machine Shop

Prerequisite: Industrial Education 237.
Bevel-gear cutting, punch and die making, internal grinding, problems in tool making. Selection of appropriate instructional materials.
Sem. I, II. Credit: 2
Milnes

Industrial Education 455 Oxy-acetylene Welding

Prerequisite: Industrial Education 335.
Operation of equipment such as generators, manifolds, tanks, gauges and torches. Study of welding of all common metals. Hand and machine cutting of steel. Testing and checking. Technology of materials.
Sem. I, II. Credit: 2
Betterley

Industrial Education 457 Electric Arc Welding

Prerequisite: Industrial Education 335.

Characteristics and operation of different kinds of arc welding equipment. Preparation of joints, striking and manipulation of the arc in various weld positions, welding of the common metals, symbols, types of electrodes, hand and machine cutting, destructive and non-destructive testing of welds.

Sem. I, II. Credit: 2

Betterley

PHOTOGRAPHY

Industrial Education 205 Elementary Photography

Prerequisite: Sophomore Standing.

Picture taking, film developing, printing and enlarging. Lectures, demonstrations and discussions. Each student is required to provide a box camera, or its equivalent, and photographic film. Chemicals and photographic paper are supplied.

Sem. I, II. Credit: 2

Barnard

PRINTING

Industrial Education 117 Elementary Composition

Elements of composition, stonework, and platen press work. Projects in straight composition involving basic operations of job printing. Supplementary lectures and demonstrations.

Sem. I, II. Credit: 2

Whydotski

Industrial Education 255 Advanced Composition

Prerequisite: Industrial Education 117.

Problems in display composition, stonework, and platen press work. An introduction to commercial problems and jobs. Supplementary lectures on typographical design.

Sem. I, II. Credit: 2

Whydotski

Industrial Education 257 Machine Composition

Prerequisites: Industrial Education 117 and 255.

Study of the mechanism, care and operation of intertype and linotype. Time divided between mechanism and practice operating.

Sem. I, II. Credit: 2

Whydotski and others

Industrial Education 259 School Publications

Prerequisites: English Composition 102a and b.

Production of school newspapers, magazines, and annuals. Elements of journalism and their application from the viewpoint of the advisor. The **Stoutonia**, the weekly college newspaper, used as a laboratory.

Sem. I, II. Credit: 2

Staff

Industrial Education 351 Printshop Mechanics
Prerequisites: Industrial Education 117, 255, 257, and 459.
Adjustments and care of machines found in the school and job shop.
Sem. I, II. Credit: 2 or 4
Whydotski

Industrial Education 359 Cooperative Industrial Printing
Prerequisites: Industrial Education 117, 255; or equivalent.
Production work at the college press under shop conditions. No outside preparation. One hundred clock hours of actual production experience in college press required for two semester hours of credit. On request for qualified students.
All Year Credit: 2 or 4
Staff

Industrial Education 361 Printing Design
Prerequisites: Industrial Education 117, 255.
Study of type design, commercial layouts, colors, papers, cover design, folders, and booklets. Application of design in printing.
Sem. II. Credit: 2
Whydotski

Industrial Education 363 General Graphic Arts
Basic graphic arts reproductive processes. Lectures and demonstrations on letter press, stereotype, wood and resilient blockcutting, lithography, etching, silk screen, stencil, ditto, engraving, papermaking, and book binding.
Sem. I, II. Credit: 2 or 4
Staff

Industrial Education 370 General Bookbinding
Prerequisites: Elementary Composition I. E. 117, and General Graphic Arts, I. E. 363, or permission of the instructor.
Basic fundamentals of the binding and repair of books. Instruction in the making of binding equipment and the use of materials obtained from local sources.
Whydotski Credit: 2

Industrial Education 374 Offset Lithography
Prerequisite: 6 semester hours in Printing.
Basic course in offset lithography including units in plate making and multilith press work.
Sem. I, II. Credit: 2
Barnard

Industrial Education 376 Advanced Lithography
Prerequisite: Industrial Education 374.
Continuation of I.E. 374. Preparation of intricate copy, stripping of negatives in plate making, and preparation of copy for multiple color work.
Sem. I, II. Credit: 2
Barnard

Industrial Education 449 Printing Economics
Prerequisites: Industrial Education 117 and 255.
Shop organization and management, purchasing of equipment and supplies, shop layouts, and cost estimating.
Sem. I, II. Credit: 2
Whydotski

Industrial Education 459 Presswork
Prerequisites: Industrial Education 117 and 255.
Practical problems and operation of platen and cylinder presses, automatic feeders, and imposition of large forms. Problems in bindery operations. Study of paper and inks.
Staff
Sem. I, II. Credit: 2

Industrial Education 557 Problems in Graphic Arts
Prerequisite: Graduate Standing.
Advanced individual projects in graphic arts. Projects must contain approved factors of educational significance, technical accuracy, and be of a type not previously covered by the individual. Use of shop laboratories as well as literature. Carried on by arrangement and conference. Term paper required.
Whydotski Credit: 2

WOODWORKING

Industrial Education 107 Hand Woodworking
Fundamental operations and information topics in woodworking. Constructing small projects.
Sem. I, II. Credit: 2
Soderberg, H. Anderson

Industrial Education 111 Woodturning
Prerequisites: Industrial Education 107 and 131.
Fundamental woodturning operations applied in projects in various woods. Study of design in turning. Advanced projects include chuck work, split turning, spiral turning, internal turning, fluting, and inlaying.
Sem. I, II. Credit: 2
Olsen, H. Anderson

Industrial Education 116 General Woodworking
Prerequisites: Industrial Education 107 and 131.
General shop course which provides training in the management of a general woodworking shop and in several basic areas of woodworking. Simple upholstery is one of the units.
Sem. I, II. Credit: 2
Olsen, H. Anderson

Industrial Education 131 Machine Woodworking
Basic elements in nomenclature, setup and operation of woodworking machines including accident prevention. Use of working drawings, stock cutting bills and fixtures for a small project. Wood identification.
Sem. I, II. Credit: 2
Hansen

Industrial Education 209 General Finishing

Study and application of various finishes for composition material, plastics, wood, and metal. Color theory, spraying, baking, drying, polishing, and refinishing.

Sem. I, II. Credit: 2

Soderberg

Industrial Education 215 Cabinet Work

Prerequisites: Industrial Education 107, 131, and 311.

Laboratory testing of wood, atmosphere, shrinkage, and its effect on structural design. Intersectional relationship of structural members, joints and fastening characteristics common to open and enclosed construction. Building projects drawn up in Industrial Education 311 or institutional equipment.

Sem. I, II. Credit: 2

Hansen

Industrial Education 219 Carpentry

Prerequisites: Industrial Education 107 and 131.

Surveying and staking out buildings; concrete forms construction, floor framing, wall framing and roof framing in actual house construction; the steel square in roof framing, sheathing, shingling, and insulating. Reference assignments and discussions.

Sem. I, II. Credit: 2

Olsen

Industrial Education 221 Painting and Decorating

Prerequisite: Industrial Education 209.

Application of color theory, color mixing, graining, stenciling, marbling, mottling, stippling, texturing with plastic materials, and other modern wall finishes. Production work and shop maintenance.

Sem. I, II. Credit: 2

Soderberg

Industrial Education 225 Patternmaking

Prerequisites: Industrial Education 107 and 227.

Basic instructional units in wood patternmaking for casting in iron, brass and aluminum. Patterns involving solid, split, and segmental construction; Core boxes where needed. Visit to a foundry.

Sem. I, II. Credit: 2

Milnes

Industrial Education 260 Saw Fitting

Prerequisite: Sophomore standing and specialization in woodworking.

Hours arranged. Institutional hand and power saw fitting with power saw filer.

Sem. I, II. Credit: 2

Hansen

Industrial Education 263 Millwork

Prerequisites: Industrial Education 107, 131, 215, specialization in woodworking.

Hours arranged. Millwork problems in construction, methods, procedures and standards in building trades. Milling stock for other courses.

Sem. I, II. Credit: 2

Hansen

Industrial Education 267 Millwrighting
Prerequisites: Senior standing and specialization in woodworking. Hours arranged. Machine maintenance, toolfitting, making special safety devices.
Sem. I, II. Credit: 2
Hansen

Industrial Education 311 Design in Furniture and Case Work
Prerequisites: Industrial Education 107, and 131.
Planning, designing and making drawings of projects, stock cutting bills, patterns and job plans for a course of study at a chosen grade level. An optional field trip.
Sem. I, II. Credit: 2
Hansen

Industrial Education 312 Cabinet Work
Prerequisites: Industrial Education 107, 131, 311, and 215. Hours arranged.
Continuation of I.E. 215. Initiative in application of design and production practices. Drawer and door construction and fitting. Extra curricular use of shop encouraged in and after this course.
Sem. I, II. Credit: 2
Hansen

Industrial Education 313 Design in Furniture and Case Work
Prerequisites: Industrial Education 107, 131, and 311.
Hours arranged. Continuation of I.E. 311 plus designing, drawing and the making of rods, jigs, and forms. Laying out molder and shaper knives.
Sem. I, II. Credit: 2
Hansen

Industrial Educaton 319 Carpentry
Prerequisites: Industrial Education 107, 131, and 219.
Review of equal pitch roof framing; scaffold construction; quantity surveying and ordering material; construction of unequal pitch roof; cornice construction, porch framing and finishing; exterior trimming; building materials; reference assignments and discussions.
Sem. I, II. Credit: 2
Olsen

Industrial Education 325 Patternmaking
Prerequisites: Industrial Education 225 and 243.
Pattern for sheave wheel; bevel gear blank. Mounted and gated patterns and matched plates; segmental construction work.
Sem. I, II. Credit: 2
Milnes

Industrial Education 371 General Woodworking
Prerequisites: Industrial Education 107, 131, and 116.
Organizing and maintaining a general wood shop. Shop and classroom equipment planned, designed, and constructed as individual or group projects. Blueprints, photographs, and other illustrations prepared and made available to students.
Sem. I, II. Credit: 2
Olsen

Industrial Education 411 Cabinet Work

Prerequisites: Industrial Education 107, 131, 311, 215, and 312.

Hours arranged. Advanced problems in fixture construction. Purchase and care of equipment and supplies. Shop layouts and installations.

Sem. I, II. Credit: 2

Hansen

Industrial Education 421 Carpentry

Prerequisites: Industrial Education 107, 131, 219, and 319.

Interior finishing; elements of stair building; structural design in framing; structural and aesthetic design in finishing; reference assignments and reports.

Sem. I, II. Credit: 2

Olsen

Industrial Education 440 Plastics

Processing acrylic plastics and materials supplementing wood. Woodworking tools used. Projects utilizing formica, fiber board, cork, and linoleum. Creative expression is encouraged.

Sem. I, II. Credit: 2

Olsen

Industrial Education 447 Institutional Production

Prerequisites: B average, senior rating, and specialization in woodworking.

Hours arranged. Building institutional equipment on a production and instructional basis with consideration given to vocational certification.

Sem. I, II. Credit: 2

Hansen

Industrial Education 448 Cooperative Woodwork in Industry

Prerequisite: Industrial Education 447 and special arrangement with instructor and director.

Full time affiliation of Stout Institute, industry, and students when it can be arranged for mutual benefit and for vocational credit.

Sem. I, II. Credit: Based on time

Hansen

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